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THE MARYLAND FARMER:



DEVOTED TO
AGRICULTURE, HORTICULTURE,

LIVE STOCK
and RURAL ECONOMY.

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No. 7.

“HARK BACK!”

“*Hark Back!*” the call of the huntsman when the hounds are at fault. This is our text for the few reflections occasioned by our present position in 1884. While we admire agricultural progress, we can not shut our eyes and the ears of knowledge from the great fact, that the ideas we have illustrated and reduced to practice, were formerly given birth to, and eliminated as far as then, human knowledge and progress allowed. No man in his senses will deny that the condition of agriculture is at present progressive, but we say it is owing mainly not to the tillers of the soil, but to the agricultural mechanic. If the genius of the mechanic had not come to the aid of the farmer, where would the farmer now be? The credit due to invention has been absorbed by the increased profit, at less labor, of the toiling farm laborer. He claims the progress made, as belonging to his class, when he boldly declares, that now two blades of grass grow where one or none grew before—he says, that 10 acres can be cultivated now with greater yield per acre, than formerly his fathers could manage one. What, is asked, is the reason? Not that labor has become more skilled, or that the owner of land has become wiser, or gained knowledge by the investigation that experiments have led him to make individually. He no longer bends his back painfully with the sickle to reap his grain, or use the same labor to cut with scythe his grass, boasting that between sun and sun he has mown down *one* acre.

The light of intelligent, mechanical minds have enabled him to cut his 10 acres per day of wheat or grass, and have it bound up or scattered, and then raked in swarths and finally made ready for the mow or rick, at a cost of 500 per cent. less, than under the system his fathers pursued. Yet at same time, the amount of labor though so much less, is done at almost no manual effort. Domestic animals are substituted for his individual sweaty labor, and machinery and implements become the thinking, labor saving mediums for both the man and the beast.

The reaper and binder, the mower and the horse-rake, the tedder, the varied improved implements of lesser kinds, are all workers to advance agriculture in making it less arduous and more productive. Yet it is held that the culturists of the soil are of themselves making this great advance onward, when, if the truth be told, it is all owing to the mechanical genius of the land in which we live. Science has spread her light toward the improvement of the soil. When animal manure is wanted, science supplies fertilizers more directly efficient to the growth of crops, if not in the end more reliable to the future increase of the fertility of the soil.

Give to all its due, and if you do, we must say, that mind has over-ridden matter, that mechanical genius and the learning of the laboratory, have far more aided to advance agriculture, than has the culturist, who in the meantime made no new departures, made no experiments of any sort, but

continued to follow the same "old ruts" that his fathers lived out. No allowances are made for the implement that in half the time turns up a new soil to the air and sun, or the machine that saves ten times the manual labor in gathering the crop, as was formerly required.

The object of these reflections are evident to the reader. But we prefer to still further impress our object by saying that we design to show, that the progress of agriculture is mainly due to the inventive genius of the age, and that the tillers of the soil are not entitled to the credit of that advancement. This, we know is unpalatable to our working farmer, but we, following the example of our best surgeons, use the knife, for the benefit of our patients. Why we ask, are our farmers content with lesser crops per acre than their fathers produced, with such poor implements, that would be ridiculed at this day! Why do they remain dependent upon the intellect and energetic enquiry of others? Why will they not experiment, and practice to a full test, new theories that they, themselves or other speculative minds may suggest? Often such experiments lead to valuable discoveries, and in themselves cost but little labor, time or expense of money, yet are interesting, instructive and engaging to the thinking, reflective experimenter.

Let us "hark-back!" and see what was done, or suggested 30 or 40 years ago. A gentleman of Vermont, wrote among other facts in 1852, to Mr. Hodges, the then Commissioner of Patents:—"Corn is generally ground for horses and cattle *with the cob*; for hogs, it is best without the cob.—300 to 400 lbs. dressed weight, is not uncommon for pigs at nine months old. In raising all kinds of stock, keep well until three months old; after that it is hard to stunt them; but if they have been pinched before that time, it is rare that they outgrow it. Those that feed well, raise cattle that dress 500 lbs. average weight, at two

years old; while the average weight of the skinning farmer's cattle is 450 pounds or less." Of corn culture he says: "Experience has shown *that the level culture is best for corn*.—I consider the fodder well-cured where the crop is 80 bushels, equal to 1½ ton of hay per acre as food for cattle."

Other documents of that period show that 400 or 500 bushels of potatoes per acre was no wonderful crop. Now we claim to be far ahead of our old fogies, and in what? The products stated by the Vermonter, are seldom to be reached now, and if so, are heralded to the world as grand achievements of the skill of the farmers of these, latter days. The theory about corn culture he then uttered, has only lately been accepted by corn-growers, and is put forth as a discovery of modern times, attributable to new facts developed by *experiments*. Let our farmers read more, and read and ponder over the works published years ago. Good must come of it, if nothing more, the mind will be enlarged by the wisdom of the past, and our self esteem will often be lowered by the fact, that we behold how much we pride ourselves upon what was known and advocated years ago, by our forefathers, and that there is really "little new under the sun."

(To be continued.)

Farm Work for July.

This is usually considered in the Middle States as the grand climacteric month, in which the husbandman has most to exert his energies, and when the season brings forth the fruition of his hopes, or bids fair toward his failure. Wheat harvest and Hay harvest are now at the best or worst, according to the seasons preceeding, and the ravages of insects, destruction by storms, &c., that may have prevailed. But, under what ever have been the circumstances, the man who rules the farm, is never at perfect rest during this critical month. He must be up early and lay down late; the days are long and hot, and without industry he will succumb to the enervating influences of the season. Let us say a word of warning; this month crowns your en-

ergies with success, or proves your labors a failure. You must secure your harvest of grain and grass, keep your growing crops clean, and often fertilized by stirring the soil, to admit air and moisture from both below and above. To do this, requires vigilance and certainly an increase of energy and power, but, as it is only for a few days, exert yourselves and gain thereby the sure success, attendant upon such efforts, or become cast-down and indolent, and reap the reward of laziness. We use common, hard words, in that we may be understood by all. This is the month to show your abilities to become successful farmers,—to embrace every chance to save human labor, with machinery, and thus reduce expenses in the saving of crops, that are now maturing. By the aid of machinery, a man can get his grain reaped, cured, and threshed at less than half its cost before the reaper and binder, and the thresher, cleaner and bagger were invented.

The hay crop can be cut by a boy and pair of horses, dried by the hay-tedder and then raked up by a ten-year-old lass, and one steady horse. It is taken to the barn or to the rick, and by the horse-hay-fork and other contrivances, placed at the disposal of an active ricker, and the whole work more completely done, by the employment of heretofore useless labor, at half cost, than ever before. So the wearied laborer, in harvest and hay field, finds that he, in the end, gets better yield and larger returns, than formerly he did, when he employed his manual labor alone in both these harvests. Let no man, who has 20 acres of wheat and grass to cut, henceforth complain of labor on a hot July day. The same money he paid years ago for help on these occasions, will, if expended in the proper machinery, enable him to reap his harvests in proper time, and secure them against the vicissitudes that attended the same in days of yore, when mechanical influences had not lent their beneficent discoveries to the aid of the toilsome farm laborer. Embrace such advantages as Mechanical Invention offer, and one man's labor will soon become equal to that of ten men. Wheat has been cut, we presume, or will be by the 10th of this month, and may we not be pardoned for again urging you to put it immediately out of the way of injury, by weather, insects, birds, &c. Have your granaries well cleaned and whitewashed, and get your grain crops in their bins, as soon as possible after harvest, and then await the condition of the markets, or your own necessities. Our impression is, that a late market is best this year.

Generally, the earlier grain in good condition, is brought to market, the higher price it will command. But this year the favorable reports of the grain production will likely have a depressing influence upon the market in its early stages. The reports from Europe are very unfavorable, and hence we conclude, that late sales will be best, because the real demands of Europe will not be appreciated, until November or December. Yet, rather than hypothecate our crops, we think it would be best, if our necessities require, to sell at once, provided we can get a fair reward for what we offer. Grain has been very low of late, but it must bring better prices, in view of all the surroundings. Hence we advise, sell not now, unless you are necessitated, but do not borrow to avoid necessity, or in the hope of speculative reward.

Treat your harvest laborers well. Liberality on such occasions, in many ways brings its full reward.

Corn.

Cultivate your corn often, to keep the top-crust of soil open and free of weeds, until it begins to tassle. Level culture and frequent tillage is best for this crop. Corn-growers have been long learning this truth, which has at last become an accepted maxim by the most enlightened farmers.

Millet, or Hungarian Grass.

May be seeded up to the 15th of the month. A light, rich, sandy loam, is the soil best suited to it. If for hay, cut it when in blossom or before the seeds ripen. Leave a portion to ripen for seed. Sow broadcast or by drill, cover lightly. It produces from 20 to 40 bushels of seed per acre.

QUANTITY OF SEED TO THE ACRE.—When for hay, sow one bushel to the acre, when for grain, sow only from two to three pecks per acre.

Buckwheat.

Every farmer should sow some of this grain, enough to more than pay for all the buckwheat cakes he gratifies the appetite of his family with the coming winter. The haulm is not very nutritious as compared with clover or corn-fodder, but it yields well if sown on well prepared, rich soil. It is a mistake to sow it on poor land for a paying crop. Turned under when in blossom, it is a good, green fertilizer for poor land, and will yield some grain on such land, as will produce nothing else. Sow one bushel of seed per acre, if broadcast, less if put in with a drill.

Corn, Drilled or Broadcast.

Sow at once, some acres in corn for winter provender, for ensilaging or feeding green to make up for poor pastures in August and September. Manure, or fertilize the land highly, put it in good order by plowing, and frequent harrowing. It is grown then with but little labor, and is a wonderful help when pastures become dry and bare, or when the hay crop is short. If for provender, cut it when just earing or in the roasting-ear state, and cure it like other field corn fodder.

Fall Potatoes.

Keep the vines well cultivated. See that the soil is kept perfectly loose, and free from weeds or grass. Potatoes will not grow well or yield well in a close, compact soil, no matter how rich it may be. Try the experiment in a small way of mulching heavily, with straw or leaves, &c. It saves much work, and those who have tried it, say it is astonishing in its results, both as to yield, quality, and cleanliness of the crop at gathering time, besides the greater facility in harvesting the crop, afforded by this system of culture. Years ago, immense crops per acre were made by preparing the land, planting just below the surface in rows, close together, requiring more seed than under the ordinary way, and then covering the whole surface with straw or other coarse mulch, say 1 foot thick and leaving nature thereafter to do all the work. By such a course, the land was improved and a greater yield was obtained, without any cultivation during the process of growth. Nothing like a practical trial to test the truth of all such theories. It often not only pays well, but leads men on to other experiments that may in the end conduct to both *profit and labor-saving*.

Caterpillars.

Look well to your orchards, and destroy every nest of caterpillars you find.

Fences.

See that these are kept in order, as now is the time when flies and other causes lead cattle to become "breachy." They, who have a poor pasture, will venture much to enter an adjoining corn field, which is so inviting to a hungry beast.

Wet Lands.

Drain these, so as to get them in good condition for fall plowing, or late summer fallowing for wheat or grass.

Budding and Inoculating.

This is the proper time for budding plum, cherry, apple and pear trees. The exact time for doing this work is when the bark slips, or

parts easily from the wood. It is both simple and pleasurable to the performer, old or young folks find in it recreative amusement and profit.

Garden Work for July.

The operations in the garden for this month are:

Preparations of Cabbage Beds.—In preparing beds for setting out cabbage plants, see that they are liberally manured and well spaded. The soil cannot be made too rich for cabbage, and upon the depth to which it is dug and its capacity for absorbing and retaining a moderate degree of moisture, the excellence of this common, but most useful vegetable will largely depend.

Setting out Cabbage Plants—Choose a moist, cloudy day, or one on which there is a soft rain, and when either occurs set out the plants in rows, three feet apart and thirty inches distant from each other in the rows.

Lettuce—Set out plants to mature, and sow more seed for later crops.

Melons, Canteloupes, Cymbblings, Cucumbers, &c.—See that these are kept well hoed and free of weeds. Water freely after sunset in dry weather.

Mangoes.—By the 10th of the month, sow a bed of melons for mangoes.

Pickles.—Sow seeds of canteloupes, cucumbers, radish, martynnias, Burr-cucumber and snap-beans for pickles the coming autumn. These, with the small onions about to be gathered, and the peppers with Challotts, horse-radish and garlic, will afford a full stock from which the family can select a supply for delicious pickles, and all, or as much as it may be, of the different kinds, packed in salt will bring highly remunerative prices in the fall from the pickling houses, or sold green in the markets. Should the grower live near a market, it is best for him to sell these pickles in their green state, but if remote, he can keep them well at home by use of salt and clean casks, until the time comes for their sale to the pickling houses. Be sure to gather them when they are small, young and tender. Large sized cucumbers, &c. will not sell at all in the market for pickles.

Bunch Beans.—Plant a few rows of bunch beans every ten days to follow the maturing crops of this fine vegetable.

Endive.—Set out such plants as are already large enough, and sow fresh seed for a late crop.

Cauliflower and Broccoli—Set out cauliflower and broccoli plants for fall and winter use.

Wait, as in the case of cabbage plants for a rainy day, or else plant after the sun sets. When the planting is done, water freely, and always do the same in dry weather.

Celery.—Plant out celery for fall and winter use. It is astonishing that farmers and owners of country places do not plant more of this wholesome and highly popular vegetable. Let it be remembered that it is grown easily with as little labor as attends the production of almost any other vegetable. It is admitted by all deep thinkers and men of science, to be one of the most wholesome and refreshing vegetables in use. It is provocative of sleep and digestion, an assuager of excitable nerves, a blood renovator, and in many other ways if freely used raw or cooked, a grand medicinal assistant to almost every constitution.—Why then is it grown so sparingly, as to become, by reason of its high price, food for the rich only? Like many other plants, it is now grown at but little cost of labor, is easily blanched and prepared handily for use, when some years back, it was thought to require more time and labor, and skill than it was worth.

We view it as the most delightful and important of all our cultivated vegetables, and trust to see the day when it will appear on every table, at least three times a week for months during the year. It seems never to come amiss—every lady loves it and we never cloy upon it, as does the appetite sometimes on cabbage, onions or even potatoes.

Pot and Medicinal Herbs.—Gather these in dry weather. Dry them under cover. Put them when dry in paper bags, and label them carefully.

Garden Peas—Choose a shady bed, and plant a few rows of peas early in the month for later use.

Watering.—In a garden of moderate size, provide an oil hogshead, put into it a quantity of rich, stable manure, to about one third of the capacity of the hogshead. Fill it up with water—rain water is the best of all—and draw from it as required for watering vegetables. The hogshead may be filled with water two or three times before the manure needs to be taken out and replaced.

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Experience with the Silo, for Two Years.

My silos are cheap structures within my barn, extending from my indispensable upper floor to the bottom of the basement. I thus get twenty-two feet in depth, and a pressure corresponding, while the corn as cut, falls directly into either of three silos, requiring very little labor to even it off three or four times a day. I find that common, rough hemlock boards, laid double horizontally, and well nailed to studs once in two feet, answer every purpose. They swell so as to be as tight as matched boards; can be used, and are even better, without tarred paper, as in summer the boards dry off better, and last as long or longer. My ensilage is filled in every day, (Sundays excepted,) unless so rainy that it is not proper to work. Each year, from two weeks to three weeks, have been taken for filling, having no care, except to add two or three feet daily.

The first year the mass became so hot, that I feared it would spoil, but had much faith in Capt. Morton's statements, and went on filling slowly. Last fall the same course was followed, and each year the silos have opened finely, and the contents have been well preserved. By comparing with others who have rushed in extra help, and filled in a day or two, I find their ensilage is much paler in color, and the acid more fully retained than in mine. I, therefore, add my experience to the Professor's theory, that a proper amount of heat, retained by daily additions to the mass, is beneficial to the contents, while this method removes the one great objection of requiring so much help and expense in filling. As compared with some, my ensilage is sweet, but still is in an acid state, nor do I believe any one has had, or can have, really "sweet ensilage," in the sense that it is not in an acid state, and is partially rotted, or in fair prospect of rotting.

So much for silo and condition, and now to the expense. In 1882, a crop of 2½ acres Southern white corn, (on pasture land, broken in autumn of 1881, and manured broadcast, with 15 one-horse loads per acre, planted with horse, and horse hoed once only,) was put in silo No. 1; from it, by actual record, just equal to seven cows were kept twenty-five weeks, having a full feed night and morning of a bushel each, and a

very light feed of hay or straw at noon, and with less grain, (only three pints a day to cows in milk; dry cows and young stock none,) than I usually feed with hay. These cows and young stock came out in good order, coming in all right, and in all respects ensilage proved satisfactory. For a time, an experiment was made by taking away ensilage, and giving hay instead, and some meal, and a marked shrinkage in milk and condition was manifest.

In the fall of 1883, more corn was placed in silo No. 1 and No. 2, and the growth was stopped, and crop injured by the early frost. The ensilage seems to be good, and I have continued to feed as last winter, and have enough to carry me 'till May 1st. Results in feeding cows two bushels per day, are very satisfactory, in condition, milk and butter; never "did" better at calving, and never had better calves, or had them grow better on skim milk; yearlings (or last year's calves,) have eaten one-half bushel morning and night all winter, with no grain or hay at noon; they have made better growth than they have ever made on the best of hay alone; heifers that are now two years old, eating three-fourths of a bushel morning and night, and straw at noon, (no grain or hay,) have done equally as well; one of them is fair beef, and a butcher asked me if I had "fed her up to be killed" some four weeks ago.

Now then, with these results after two years' trial, (you will notice I do not use ensilage as a condiment or appetizer, or a part ration,) having put the feeding of ensilage on probation, I am fairly brought to the following conclusions:

1st. In regard to my own future course; if I can be sure of good ensilage, I care very little, if anything, about hay, and if compelled to wholly abandon growing either hay or ensilage, I should let my hay "go to grass," and feed it in the summer, and fill my silos, giving what grain and straw I could grow the following year on ensilage corn land.

2d. In regard to others, I would say: place not the least confidence in the statements or writings of men of science, or theory, or anything else, against silos or ensilage, unless they speak from personal experience, and after using ensilage as a main reliance for animal food, for at least one or two full seasons.

3d. In regard to those "learned men," who are still spreading their theories and chemistry so thin before the public, in opposition to the new method of stock feeding, I will say, in all respect for the motive that prompts them, don't say anymore until you have made a full and continuous trial of ensilage, making it the main food for animals, for two years in winter. When you have done so, then we farmers, who must earn our bread, yes, and milk too, by the sweat of our brow, will take some stock in your arguments and theories. Until then, we must trust more fully to our cows and our experience, fully believing that when "educated" men get even with them, theory and practical results will be in full accord.
—C. F. Nutting, in *New England Farmer*.

THE WASH FROM ROADS.—Every road not on a dead level has more or less debris which has a fertilizing value washed off upon its side. The water itself is valuable and will make grass wherever it spreads. In a hilly country, or one of gentle grades nearly all this water and the fertilizing matter it carries may be turned off at frequent intervals upon the adjoining pastures and meadows. The dust and debris of the highways consists of finely pulverized soil and stone, which contains more or less lime, potash and other valuable matter, so minutely divided that water makes it immediately available for plant food. Iron and steel tires have been at work upon it, horse and oxen shoes, and the frost likewise which thoroughly pulverizes it.—*American Agriculture*.

SHEEP ARE IMPROVERS OF THE SOIL:—That sheep will improve the fertility of your soil may be very easily demonstrated by yarding them a few nights in spring or summer on thin or poorer spots, or on knolls that may be found in most of your pastures, those places where the grass grows weakly and where sorrel grows. Sow clover, timothy or blue-grass seed thickly, and then by a light portable fence confine your flock of sheep for a few nights on these places, and you will soon realize that by a little attention, and not very much labor, your soil will improve in fertility, and that your sheep, with a liberal use of clover and grass seed and plaster, may be made the best and cheapest fertilizing agents you can employ, particularly on fields most remote from your barns.—*Cultivator*.

Pulverization of the soil.

The following experiment made by the editor of the *Live Stock Journal* shows the great importance of the thorough pulverization of the soil: "We once experimented by hauling twenty-four large loads of the best manure upon two acres of clay-loam land, had it well cultivated into the soil, which had been worked in the ordinary way, but was somewhat lumpy. This and the adjoining two acres were to be sown to corn for fodder. Upon the other two acres no manure was put, but it was plowed and cultivated till the soil, four inches deep, was as fine as a garden bed. One and a half bushels of corn were drilled per acre upon each piece, drills sixteen inches apart. When this corn was in blossom and ready to cut, the unmanured two acres stood eighteen inches higher than the manured piece. On selecting two sample rods in different places upon each piece, cutting the green corn and carefully weighing it, the manured piece gave 275 pounds per rod, and the unmanured, but finely pulverized, gave 350 pounds per rod—the manured giving twenty-two tons per acre, and the other twenty-eight tons per acre. The cost of extra working was \$2.50 per acre. Could there be any doubt that the extra labor was well paid for?"

Kinds of Fertilizers.

Prof. Caldwell says in the *New York Tribune*:

Experience has fully shown, that of the twelve substances, which crops require in their food, only three, nitrogen, phosphoric acid and potash, can be profitably purchased in manures. The fertilizer dealers offer these three substances in different combinations, as follows: Nitrogen in three forms, namely, nitrate of soda, ammonia salts, and, thirdly, in animal refuse of all kinds, such as dried blood, meat, fish, etc., where it is called nitrogen of organic matter, or for short, *organic nitrogen*. The first two compounds are very soluble in water: and as plants, feed most easily on soluble food, nitrates and ammonia salts supply nitrogen for the immediate use of the crop; organic nitrogen dissolves, and comes into use much more slowly. Phosphoric acid is supplied in the phosphates in various grades of solubility. A pure superphosphate would have all its phosphate

soluble; in ground phosphate rock from South Carolina, all the phosphate is very insoluble; in bone meal, which supplies also organic nitrogen, the phosphate stands between the two extremes above mentioned in solubility. Potash is furnished in the German potash salts in two forms, the muriate and the sulphate, both alike are soluble in water; and farmers can sometimes get potash in wood ashes. A pure superphosphate is never sold as a fertilizer. The ordinary superphosphate is a variable mixture of insoluble and soluble phosphate and organic nitrogen, very rarely with any considerable quantity of nitrogen in the other forms and sometimes having potash salts in it and sometimes not. If a superphosphate contains no nitrogen or potash compounds it is called a *plain* superphosphate.

Improving Land.

The correspondent of an eastern exchange says that the great failure in restoring corn lands is by trying to do it by growing grain crops, when the real thing to do is to get a crop of grass first. After a piece of land is once in condition, so that it will produce a good crop of clover, there ought not to be any trouble about managing it so that crops could be produced profitably, and the soil kept in good shape. But when we propose to cultivate a poor piece of land, we want to so start that we shall improve; we want to start on a road to improvement. We must get it cheaply, and consequently profitably, up to the point of raising good clover. If we pursue the wrong course and exhaust a soil which has been improved by lying ten or twenty years, of what little fertility it has, it is left in a condition next to worthless. By taking advantage of what the soil already contains, and by adding a little to it, and then getting it into good grass without attempting to crop it, we make a beginning of getting on to improvement, and make a beginning which any farmer ought to be capable of taking advantage of, and besides continually increasing the fertility of his soil, he can grow crops with profit.

FITTED OUT FOR THE SEASON.—Dresses, cloaks, coats, stockings and all garments can be colored successfully with the Diamond Dyes. Fashionable colors. Only 10c. at druggists. Wells, Richardson & Co., Burlington, Vt.

Composition of Plants.

English farmers calculate largely upon the rich food given their fattening animals, to make rich manure for the land. They feed oil-cakes, and charge half the cost to the manure account. In this country, we have never sufficiently valued this. Let us examine, for a moment, the value of different foods as manure. We will give a short table, showing the value that may properly be attached to each food, in enriching the manure. This table gives the quantity in pounds of nitrogen, potash and phosphoric acid, in 1,000 of each food.

Foods.	Dry Matter.	Nitrogen.	Potash.	Phosphoric Acid.	Value per Ton.
	lbs.	lbs.	lbs.	lbs.	
Meadow hay	857	15.5	16.8	3.8	\$8.35
Timothy hay	856	15.5	17.2	6.8	9.00
Dead ripe hay	856	12.0	5.0	2.9	5.56
Red Clover, bloom	840	19.7	19.5	5.6	10.55
Red Clover, ripe	840	15.0	12.2	3.5	7.56
Alfalfa	840	23.0	15.2	5.1	11.00
Green oats	855	14.7	24.1	5.1	9.20
Green Peas	833	22.8	29.6	9.7	13.66
GRAINS.					
Beans	855	41.0	12.0	11.6	18.52
Peas	857	36.0	9.8	8.8	15.87
Rye	851	17.6	5.4	8.2	8.62
Oats	870	20.6	4.5	6.2	10.27
Barley	860	17.0	4.9	7.3	9.16
Maize	886	16.6	3.6	6.1	77.2
Millet	870	23.2	4.7	9.1	10.73
Sorghum	860	16.0	4.2	8.1	7.88
Flax seed	905	36.0	12.3	13.4	17.50
BY-PRODUCTS.					
Cotton seed cake, decor- ticated	900	62.0	21.0	29.5	30.74
Linseed cake	890	45.0	14.7	19.6	21.88
Linseed Meal, extract'd	903	59.8	17.0	25.6	28.68
Malt sprouts	905	38.0	19.5	17.2	19.46
Wheat bran	865	22.0	14.8	32.3	16.15
Rye bran	875	32.2	19.3	34.2	16.43
Sugar beet cake	308	18.0	3.6	1.0	3.45
Buckwheat bran	860	27.3	10.0	17.0	8.52

We have given this table that our readers may see at a glance, the great value of the manure from various foods. From experiments last month, we showed that 95 per cent. of the fertilizing matter of foods, is found in the liquid and solid droppings. But suppose we estimate only 80 per cent. as recovered in the manure, and then compare the cost of the fertilizer in the food with commercial ammoniated phosphates. —*Farmer and Dairyman.*

THE MARYLAND FARMER, one year, price, \$1.00; World's Encyclopedia, a library in itself, price \$1.00. The two for only \$1.50.

SAVE THE LIQUID MANURE.—It is said that the liquid manure from a horse in one year is 3,000 pounds, or about 8 pounds daily; from a cow 8,000 pounds or about 22 pounds daily; from a sheep 380 pounds and from a pig 1,200 pounds, yet many who think they are good farmers, keep their stock on floors where a large part of this runs through and is lost.

THE DAIRY.

The Jersey Cow.

A small, wedge-shaped body, the head of a fawn, large, soft eye, crumpled horn, small ears, yellow within, a clean neck and throat, fine bones, fine tail, a well-formed, capacious udder, with large, swelling milk veins, and a general deer-like aspect, characterize the latest favorite among breeders of fancy cattle.

There is no doubt that the Jersey cow is a good thing, and as profitable from a money-making point of view, as she is handsome, and the strange part of the matter is, that the owners of many of these herds in the suburbs of Boston, are neither farmers nor dairymen, but are engaged in business in the city, keeping their stock merely as a means of recreation. Small, handsome and gentle as a deer, she is particularly fitted for a family cow. Every suburban resident, who is able to keep a couple of goats for his boy's pleasure, rich enough to own one of these animals. She may be permitted to roam about the door, yard, with as much freedom as a dog, and if she comes of the right strains of blood, she will furnish from six to twelve pounds of butter a week, besides an abundance of milk and cream. Fifty dollars a year is fair estimate of the cost of keeping such an animal on a small place, while there are very few families that do not spend one hundred dollars in the same length of time for supplies of inferior milk and butter.

As a family cow, the common cow cannot approach the Jersey. The large, ungainly animals, that are to be usually met with in farmers' pastures, give from sixteen to twenty-four quarts of weak milk daily, in their flush, gradually dwindling down to nothing in the course of six months, while a little Jersey will give, say, twelve quarts of rich, creamy milk in her flush, and never

fall below six, until within a month or two of her next calving. The advantages of this are obvious. There is no waste of milk in her flush season, with a total absence of it later.

"But I can't afford to pay the first price of a Jersey," said a New Hampshire farmer, when these facts were laid before him. "It takes a pocket book as fat as a hog to buy the best animals, and the poor ones are no better than common stock."

There was reason in what he said. There are Jersey cows not worth their feed, and if you cannot buy the best, buy none. But a six-weeks-old calf of the best butter families, may be purchased for \$100, and the period of waiting until it becomes profitable, is not so long as might be imagined. The precocity of the breed is something wonderful. Mr. Mackie, of New Jersey, reported that his yearling, Hebe IV, became a mother when she was only fourteen months and two days old. He said that she had no trouble, behaved well in every respect, and that he does not think the labors of maternity, so early imposed upon her, will injure her growth in the least.

Of course, for beef purposes, the Jersey is not a sterling success, because she has been bred for her butter qualities, and for the past five hundred years, the aim of the Jersey Islander, has been to improve the quality of her milk. A couple of years ago, a careful experiment was made by Mr. Charles Beach, of the American Jersey Cattle Club, which proved that to make one pound of butter, required eleven quarts of milk from a common cow, while six and one-third quarts of milk from a Jersey, was all that was needed. This shows, that a common cow, giving twenty-two quarts of milk, will not make a particle more butter than a Jersey, giving twelve quarts and one pint.—*Farmer and Manufacturer.*

OATS FOR STOCK.—Professor Henry says:—I would urge that our farmers give more oats to young stock, colts as well as calves. There is no food so easily attainable that will so well correct acidity of the stomach and keep the whole system in good order. To those who wish to raise calves on very little milk, I would say, use oats and oil meal freely, and by studying the wants of the calves you will be able to raise fine animals on a small allowance of milk.

Perfect Butter.

Mr. Robert Hall, an Ohio butter inspector, says that where butter is properly churned, both as to time and temperature, it becomes firm with very little working, and it is tenacious; but its most desirable state is waxy, when it is easily moulded into any shape, and may be drawn out a considerable length without breaking. It is then styled gilt edge. It is only in this that butter possesses that rich nutty taste and smell, and shows up a rich golden yellow color which imparts so high a degree of pleasure in eating it, and which increases its value manifold. It is not always necessary, when it smells sweet, to taste butter in judging it. The smooth unctuous feel in rubbing a little between the finger and thumb expresses at once its rich quality; the nutty smell and rich aroma indicate a similar taste; and the bright, golden-glistening, cream colored surface, shows its height of cleanliness. It may be necessary at times to use a tryer, or use it until you become an expert in testing by taste, smell, and rubbing.

Unwholesome Milk.

Milk is, and must be, the chief sustenance of infants. It is their main reliance, and when this fails or is vitiated, they must succumb. The quality of their milk supply is to them life or death. We always contemplate with horror the relation between milkmen and city infants. There is an unholy aspect about it. On one side is seen shrewd and designing adults in the vigor of life, selfishly and heartlessly striving for gain from the price of blood. On the other is seen "RACHEL weeping for her children because they are not." The milkmen get the pieces of silver, and weeping mothers lay their infants in the tomb. They perish at the hands of the milkmen, and the blood of helpless innocence is on their skirts. There is no denying it. Thousands of infants die annually in the cities of the United States from the use of bad milk. The doctors know it, physiologists know it, intelligent men know it, and the milkmen know it, but they reason like the rum seller, "if I don't sell it somebody else will," and continue on dealing out their bad milk and water.—*National Live-Stock Journal Chicago,*

Sound Advice.

H. S., in the Rural, in speaking of dairy apparatus says that a good butter maker can produce as good an article with shallow pans, in a clean room, etc., and without any of the modern improvements as with these, no doubt. But an ordinary butter-maker, with only ordinary facilities, may do better with a creamer and improved churn; but that is not the great point; it is the saving of labor which is made with all the improved appliances. I have used the common ladle in working over twenty-five to forty pounds of butter in the winter time, and have now a hard lump in the palm of my hand where the handle of the ladle first blistered and then calloused it; and those who know how this is themselves will agree with me that a good butter-worker is far easier to handle than the ladle, and also that churning with an up and down churn is hard work, and positively injurious to any women [why should the women churn?—ED.] while one can sit down and turn a rectangular or small revolving barrel churn with perfect ease.

A CORRESPONDENT of the *Country Gentleman* remarks: "Heifers that breed young, generally make the best cows at maturity. If a heifer has a small bag when she calves, it will increase with age, and when she is at middle age, she is altogether better than one that is kept back, until she is a cow before she breeds. One, three years old, before she breeds, may do well the first season, but never does well again. The young heifer will begin small and do best at maturity. These conclusions are arrived at after more than fifty years' practical experience. I have known a heifer to drop a healthy calf three days before she was twelve months old, and she had no unusual trouble, and was as well and healthy as any cow. I am the owner of a cow that dropped her first calf at seventeen months old, and was always small of her age. She has always done well, and never needed the aid of a veterinary surgeon."

IN ANSWER TO A QUESTION, as to what is the best grain food for milch cows, Professor Arnold recommends four parts of bran, two parts of corn meal and one part of linseed meal, as having given him the best results in proportion to cost of any dry food that he had ever used.

WEIGHT OF MILK:—New milk weighs 8 pounds 8 ounces per gallon, skimmed milk, 8 pounds 9 ounces, cream, 8 pounds 4 ounces, buttermilk, 8 pounds 8½ ounces, and water 8 pounds 5 ounces. Those who believe in testing milk by the lactometer, or any specific gravity test, will observe, that three gallons of skimmed milk and one gallon of water, will have the same specific gravity as a gallon of milk.—*Rural World*.

IN answering a query, as to what a creamer can be depended upon to do, the *Rural New Yorker* says: No creamer will make fancy butter. It is not the creamer, but the person who uses it that must give the quality to the butter. The creamers are merely conveniences, which help the good dairyman to make good butter, but which are no help whatever to the careless and poor ones.

FEEDING COWS.—R., South Charlotte, Me., has experimented with cows in the line of feeding. One year he gave them only hay, and the next year four quarts of corn meal to each animal, from the first of November to the first of June; during June he fed each cow two quarts of the meal daily. The first year's test resulted in the consumption of three tons of hay, and the production of 100 pounds of butter per cow. He valued the hay eaten by each animal at \$30, and the butter each made, brought \$25, a loss of \$5 per cow, no reckoning pasturage, labor of milking, etc. The meal for the second year's test, cost \$19.60 per cow, and he estimates the consumption of hay by each cow, two tons, valued at \$20, making the total expense \$39.60. The butter yield of each cow was 300 pounds, which sold for \$75, making a profit of \$35.40 per animal. There was also an appreciable increase in the value of the skimmed milk over the first year.—*Mirror and Farmer*.

BUTTER BUYERS everywhere are refusing to take white, lardy looking butter except at "grease" prices. Consumers want nothing but gilt-edged butter, and buyers therefore recommend their patrons to keep a uniform color throughout the year by using the improved Butter color made by Wells, Richardson & Co., Burlington Vt. It is the only color that can be relied on to never injure the butter, and to always give the perfect color. Sold by druggists and merchants.

LIVE STOCK REGISTER.

For the Maryland Farmer.

The True Object in Feeding.

Not a very old person can remember when large animals were "all the rage." A hog that weighed less than four hundred pounds, was not to be boasted of. So with a steer, the only test of excellence was the scales, the only expression of virtue was in pounds avordupois. This has changed, because farmers have been compelled, to more closely compute the cost of production, and they have learned, that the largest animals are not the most profitable. These large animals were made by growing them first, and fattening them afterwards. This was expensive, for the waste of their bodies must be replaced during all of their long existence. Now, the great object is short feeds. We are told that the prime condition of successful stock-raising, consists in fattening and growing together the animal, as fast as possible, from the very inception of its birth. Weight is yet used in computing the excellence of the animal. But because the additional factor of profitability, has come to be considered in the problem, the age of the animal, is coupled with the weight. It is just as important to state how long that certain animal has been in acquiring its weight, as to state what that weight is. It is no longer the largest animal, but the fastest growing and fattening one, that is considered the best.

It was an important step forward, when circumstances both forced and led farmers to compute more closely the cost of production, and when those computations showed them, that it was not the heaviest animal, but the result of the quickest feeding, that was the most profitable. It was an important piece of information, to acquire that long feeding was unprofitable, and short, intensive feeding the best. But have we not gone to the other extreme? In our efforts to fatten and grow very rapidly, have we not forgotten cost, have we not again overlooked profit? We see published accounts of wonderful increases in flesh, or marvellous yields of milk, but no reckoning is made of the cost.

We should have this item, for I believe it to be true, that the true object of feeding is to produce the greatest amount of flesh, milk, &c., at the smallest cost. Our en-

deavor throughout, is to make the most clear money, the largest gain. This is the margin between price realized for an article and cost of production. Two men may raise each, an animal, whose weight is 1,000 pounds; but if it costs one man less to produce this weight, than it does the other, the one makes more money than the other. He more truly accomplishes the real object of feeding.

These phenomenal growths or yields of milk, are produced by high feeding of concentrated foods, accompanied by the best of treatment. But this extra treatment costs labor and thus fancy food costs money. May not the greater cost of these two items destroy the profit of extra production? Do not understand me as advocating scanty, coarse food and negligent treatment. On the contrary, I would urge the very opposite of these so far as consistent with the object to be attained—the greatest profit. But it is open to question if the object is not defeated by the greater cost of production, of these great growths of flesh, or large milk yields. I believe in fast growth and good feeding. But when fast growth is carried to an extreme, it may be, I believe is, destructive of the very ends the sensible feeder seeks to attain. Along with the reports of large growths and immense milk yields, let us have cost of production, and we can then the better determine, whether or not we are to accomplish the true object of feeding in this way.

In this connection, there is one fact which should receive more consideration than what it does. Disease is certainly opposed to the object of feeding for nothing more rapidly or surely destroys profit. This high-pressure feeding, is only too productive of disease. It taxes the organs of digestion and assimilation to their utmost. The very object is to put upon them all they can possibly bear. Too often the strain is made too prolonged, and they break down under the burden imposed upon them. The result is a collapse of health, and in turn a destruction of profit. Yet, intensive feeding must necessarily tend to produce just this state of affairs.

I would, in summing up, state the true object of feeding, to be the greatest production at the least comparative cost. And I wish to express it as my opinion, that in our efforts after great production, we too often overlook cost, thus defeating our pur-

poses. And while I hold, that to a certain point, rapid growth and fattening are the thing, yet I am not sure, but what we have often carried this to an extreme, past the true object of feeding. JOHN M. STAHL.

St. Louis, Mo.

Soiling Pigs in Summer.

As the pig is a grass eating animal, this taste for grass or roots should always be gratified. Many farmers have no pig pasture, and keep their pigs in a pen, or pen and small yard. They seem quite to forget the nature of the pig, and treat him as if he were only fitted to digest grain or other concentrated food. This may be responsible for many of his ailments.

It is easy for the farmer to furnish clover or other green food to his pigs in summer. This animal is not very particular; there are many weeds in the garden that he will take and return his thanks with a polite grunt. He appreciates all such attentions shown him, and will testify it by better health and growth. This is a matter of much importance, as a bushel of corn feed with clover will often produce as much growth as a bushel and a half feed alone. Animals grow best when they are in good health and have a vigorous appetite, and the clover or other green food keeps their digestion good.

When the clover is large, the pigs will eat it better if it is run through a cutter. This mixes stalks and leaves so as to render it more succulent. The pig will eat more clover or grass than is generally supposed. Shoats of 50 to 80 lbs. will eat from 6 to 8 lbs. of green clover per day. We have found the best way to feed was to run the clover through a cutter and mix with meal. In this way, the clover and meal was eaten together, and this mixing of the bulky and concentrated foods results in a more perfect digestion of the corn meal or other ground food. We tried so accurate an experiment on this, that the result is not left to conjecture.—*National Live-Stock Journal, Chicago.*

THEIR NAME IS LEGION—Legions of people have had their lives made miserable by piles. This painful difficulty is often induced and always aggravated by Constipation. Kidney-Wort is the great remedy for all affections of this kind. It acts as a gentle cathartic, promotes a healthy action of the bowels, and soothes and heals the inflamed surfaces. It has cured hundreds of cases, where all other remedies and applications have failed.

Greater Accommodations Needed at the Mt. Winans Quarantine.

The conference held in this city between Dr. E. F. Thayer, of Boston, Prof. James Law, of Cornell University, New York, members of the United States Cattle Commission, and Dr. A. H. Rose, veterinary inspector at the United States cattle quarantine near Mt. Winans, on the improvement of the sheds and grounds for imported cattle. The commission determined to urge that an appropriation be made to increase and improve the sheds and adapt the grounds for the large business expected this summer. This shows how largely has increased of late the importation of improved stock to this port, owing to the increasing demand for such stock and the unequalled facilities for quarantine of stock at Mt. Winans, owing to the B. & O. having a line of road direct from Locust Point to their Winans property in Baltimore county.

Sale of Imported Jerseys In Baltimore.

We are glad to hail this sale of imported stock in our city, and hope it will be the forerunner of other importations for sale at this port. This importation and sale was made by the enterprising firm of H. R. Tucker & Co., and deserves the commendation of the public. There were at this sale, held in this city, 17 head of choice Jerseys sold and mostly bought by citizens of the adjoining counties and city of Baltimore, at fair prices, as will be seen by the following statement:—

The aggregate of the seventeen head amounted to \$5,543, the purchasers being as follows: Farmer's Zampa \$430, Mr. Farnandis; her heifer calf, Admiration \$150, G. T. Jennings; Philador's Brunette \$405, M. B. Rowe; King's Lucile \$250, Joseph W. Jenkins, Jr.; Primrose Lady \$510, Joseph W. Jenkins, Jr.; Jersey King's Pet \$315, M. B. Rowe; Handy Maid \$480, Joseph W. Jenkins, Jr.; Carlo's Bessie \$500, Wallace King; her bull-calf \$36, A. B. Hunting; Lemon Peel's Victory \$485, W. B. Graves; her cow-calf \$225, W. H. Oler; Napier's Rose \$310, George Small; Foretaste \$390, S. Spencer; Bagot's Beauty \$240, C. J. Bonaparte; Queen Mabel \$330, W. Fell Johnsan; her bull-calf \$43, Edward Peerce; Royal Mabel \$400, Charles D. Fisher.

Horse Stabling.

Stable accomodation is very imperfect on many farms. The only rule by which the length of a stable can be regulated, is the number of stalls required, and these should never be less than from 5 feet 6 inches to 6 feet wide. It is desirable that the width of a stable for farm horses be at least 18 feet, in order that ample space may be available behind them. It has for some time been, and still ought to be, a desideratum in the construction of the stable, to have the walls built high—it may be higher than any other portion of the farm-steading—and the apex of the roof “open.” When the building is high and “open,” horses thrive much better than in stables, which are small and close. Small stables are very objectionable, being generally badly ventilated and injurious to the equine constitution. The temperature in the stable should be about 53 degrees in winter, and and from 55 degrees to 60 degrees in the summer. Purity of atmosphere is essential to the strong, healthy and muscular development of all animals, and especially horses. The partitions between the horses should never be shorter than about nine feet; two feet of which are required for the manger.

IMPORTS OF BLOODED CATTLE.—Collector Webster, June 16th forwarded to Washington, the report of the number of blooded cattle imported by way of Baltimore, for the year ended June 1. The number landed was 1,109, which, with 68 calves, born in quarantine, makes 1,177. Of these, 293 were Black Polled Angus Cattle, 196 Galloway, 553 were Herefords, 31 Shorthorns, 23 Sussex and 13 Jerseys. They were mostly bound West.

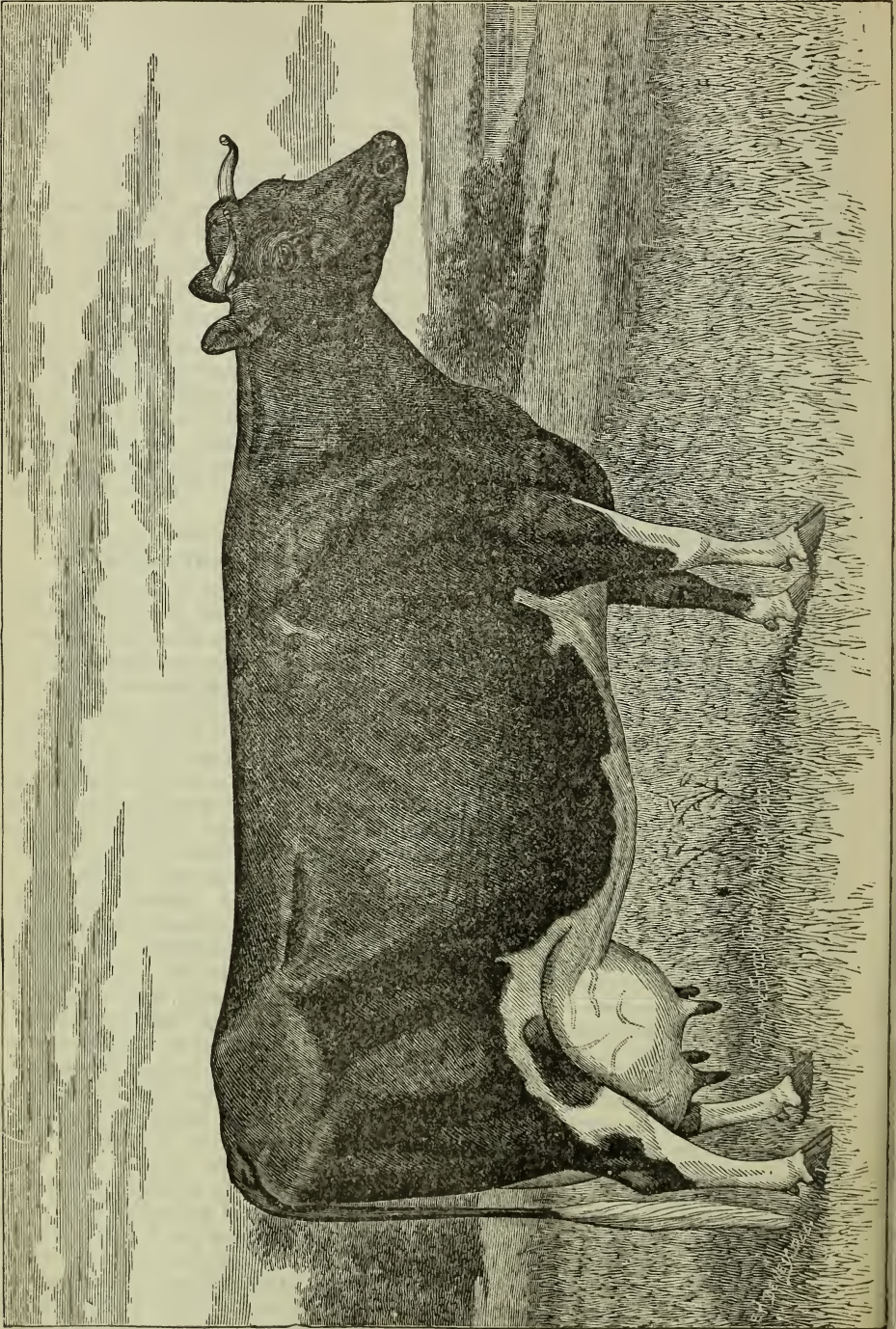
THE man who keeps an ox or cow until it pines with old age, is a double loser by so doing. It invariably costs more in food and care to maintain an old animal than a young one. As the vigor of life fails, digestion is less perfect, and assimilation slower and more difficult, and the waste is greater. As the decline goes on, more and more food is required to produce milk or meat. Old animals can be seldom fattened at a profit, where it requires so much more time and feed to do it. But their flesh is not equal to that of animals in their prime, so there is a loss, both in the quality and cost of producing.

The Burnside Herd.

At the late sale of imported Jersey cattle held in New York, the celebrated Burnside herd of Mrs. Samuel M. Shoemaker, was added to by the purchase of three more cows, for which \$5,000 was paid. The sale was for T. I. Cooper, of Linden Grove, Coopersburg, Pa., and was held at the American Horse Exchange, corner of Broadway and Fiftieth street. About 70 animals sold, most all of them being cows, and the average price realized was \$700. The highest figures were those paid in two instances, by Mrs. Shoemaker, who bought as follows: Primrose of East View, 24,426, 2½ year-old-cow, by Le Rouge and Khedive's Primrose, \$3,050. Fillpail II., 24,388, three-year-old-cow, by King and Fillpail, \$2,000. This speaks well for Maryland.

THE CARE OF SHEEP.

Profit in sheep husbandry means the most generous and judicious feeding, and care carried out in every part of the system. When this is done, so far from the sheep being unprofitable upon our higher priced lands, it is doubtful if any other animal pays so well. In England, it has been said that, on lands worth \$300 to 500 per acre, fertility can be more profitably kept up with sheep than any other stock. Dairy stock, for instance, carry off much more in the milk alone, than sheep in all ways, besides taking as much to build the bones and grow their bodies. The waste of phosphates is much more rapid in dairying than sheep husbandry. If, then, sheep may be fed to profit in England, on land worth \$400 per acre, we should not be deterred from sheep feeding on lands worth \$50 to \$150 per acre. England is considered peculiarly a beef-eating country; but yet the best mutton brings a higher price than beef. Our large cities and manufacturing towns, are constantly increasing their demands for good mutton, and this demand is likely to increase as fast as the production. If we should feed as large a number of sheep per hundred acres in the Middle and Eastern States as does Great Britain, the desire for emigration from these States, to more fertile lands of the West would soon cease.—*Stewart's Feeding Animals.*



"ECHO," Holstein Cow, 121 H. H. B., owned by F. C. Stevens, Esq., Attica, N. Y.

"ECHO."

We present to our readers this month, a cut of the Holstein cow "Echo," (121 H. B.), celebrated as the cow having the largest milk record in the world. Last year she stood at the head with 18,120 lbs. 8 oz., for the year from March 20, 1882, to March 20, 1883; and this year, with a rest of only about six weeks, gave 23,775½ lbs., thus exceeding by 4,000 lbs., the largest record ever made, (that of Empress made this year, 19,714½). Such a remarkable yield for two consecutive years, proves her to be the most wonderful milch cow on record. Notwithstanding this test, she is now in fine condition, and weighs 1,760 lbs. She is owned by Mr. F. C. Stevens, of Attica, N. Y., (to whom we are indebted for the statistics contained in this article), and is one of the famous "Maplewood Herd of Holsteins." Other well known members of this herd, are: "De Joustier" (102 Friesian H. B.) and (1282 H. B.)—pictured and described in May number of the MARYLAND FARMER; and "Rhoda" (434 H. H. B.), whose milk record is 89 lbs. per day, 2,150 lbs. in a month, and 14,297½ lbs. in 313 days; "Jewell" (668 H. H. B.), a very model of Holstein beauty; and "Constantyn" (248 N. H. B. and 2040 H. H. B.), imported in 1883—sire and dam both recorded in Netherland H. B.—and now considered the finest Holstein bull in America.

Mr. Stevens, is also owner of the Holstein heifer "Ononis," whose breeding is the finest of any cow in this country or in Holland, so far as known. The most distinguishing blood through a long pedigree is concentrated in her, as witness below her direct antecedents:

"Ononis" (2366), sire "Empire" (588); dam "Onyx" (1066). "Empire" out of "Empress" (539), by "Billy Boelyn" (189). "Onyx" out of "Ondine" (828) by "Leeghwater" (132 N. H. B.). "Empress" and "Leeghwater" were from the same stable in Holland. "Empress" Holland

record was 48 Litres or 109.05 lbs. per day, for twelve consecutive days, and her estimated record for a year, 21,342½ lbs.

"Ondine" gave at six years of age 90 lbs. of milk per day, 2,545 lbs. in 31 days. As a two-year-old, she was awarded the first prize at Rotterdam, Holland, and first prize in class of mature cows at N. Y. State Fair in 1880. She was a perfect type of milk and beef animal combined.

"Billy Boelyn," is well known as a fine bull and a prize-winner. "Empire" and "Onyx" were both prize-winners at the N. Y. State Fair in 1880.

So, through her antecedents, "Ononis" is one of the most valuable Holsteins in the United States or in the world, and of herself she is a model. She is at present two years old, and having very recently dropped her first calf, giving 51 lbs. of milk, of unusual richness, per day. Her calf, has also an illustrious pedigree on the side of its sire. Its grand-dam was selected by an inspector of the N. H. B. in Holland, as the best cow he could find, regardless of price, and it has other ancestors equally noted.

We learn that the performances of Echo's progeny this year fully sustain her reputation, and prove her ability to transmit her wonderful milking qualities. The established reputation of Maplewood Herd is, that it contains only animals of the best breeding, so it is probable that Mr. Steven's recent importation, which arrived about June 1st, and will be released from quarantine about the 1st of August, are of this character.

The monthly record of "Echo" for the two years—from March 20, 1882, to May 28, 1884, is given below. The average for the entire time, including the time she was dry, was 51 lbs. per day. As a butter cow she is also good, having made in a week 17 lbs. 3 oz. of salted butter from 528 lbs. of milk, which is 1 lb. of butter from 30 lbs. of milk.

From March 20, 1882, to March 20, 1883: March, 12 days, 592 $\frac{3}{4}$ lbs; April 1,433 $\frac{1}{4}$; May 1,533 $\frac{1}{2}$; June, 1,988 $\frac{1}{4}$; July, 2,196 $\frac{3}{4}$; August, 1,554; September, 1,400 $\frac{1}{2}$; October, 1,455 $\frac{1}{2}$; November, 1,301 $\frac{1}{4}$; December, 1,375 $\frac{3}{4}$; January, 1,340 $\frac{3}{4}$; February, 1,189 $\frac{1}{4}$; March, 19 days, 752 $\frac{1}{4}$; total 18,120 lbs.

From May 28, 1883 to May 28, 1884, it was: May, 3 days, 198 $\frac{3}{4}$; June, 2,143 $\frac{3}{4}$; July, 2,140 $\frac{3}{4}$; August, 2,290 $\frac{1}{2}$; September, 2,153; October, 1,907 $\frac{1}{2}$; November, 1,943 $\frac{1}{2}$; December, 1,939 $\frac{1}{2}$; January, 1,931; February, 1,803 $\frac{1}{2}$; March, 1,931 $\frac{1}{2}$; April, 1,700; May, 28 days, 1,623 $\frac{1}{4}$; total, 23,775 lbs.

Increasing our Mutton Sheep.

It has long been our opinion that simple wool growing is not warranted on land worth more than twenty to thirty dollars per acre. The simple fleece, even if wool be 40 to 45 cents per pound, will not pay where cultivated grasses are grown and housed as food for a long winter. Since Nature has provided for a double income, why should not the sheep farmer avail himself of both to the fullest extent? Our people do not fully appreciate mutton as a food, and we cannot be considered as expert in raising mutton as beef, but if we examine the quotations of our fresh beef and mutton exported, we find that our mutton uniformly outsells our beef. It must be understood that the exporters seek the best of both for export. And if we appreciated good mutton as much as the English people do, we should have a very large market at home. There are strong reasons why farmers should consume more mutton: the first is, that it is healthier than pork; and the second is, that it can be used fresh in summer better than any other meat. The quarters of a sheep can be kept, by aid of a little ice, in the hottest weather, till consumed by the family. It certainly would promote the health of farmers and their families to exchange some of the fat, salt pork, for good, fresh mutton. It is very evident that our home market for mutton is capable of great expansion, and that the income derived from this, would greatly assist in cheering up the discouraged sheep farmers. — *National Live-Stock Journal, Chicago*.

OUR LETTER BOX.

COMPLIMENTARY.—Mr. E. T. writes us, "The Md. Farmer is a very sprightly Magazine I see no reason why it should not reach a circulation of 25,000 per month, it is within the reach of all, and gives a great deal for a nominal price. I am much pleased with it, and am confident it soon will reach the hoped-for circulation, and trust you may realize that success, which is so well deserved by your efforts to advance the farming interests of our old State."

Southern Grasses.

JUNE 5TH, 1884. NEW ORLEANS, LA.

Editors of Maryland Farmer:

Among all the marvellous changes going on in the South, there are none, that are fraught with such unconsidered beneficence, such cheap, pervasive benefits, as the ingress of some of the Southern grasses. This is, clearly the hand of Providence. It is without man's intervention, often in spite of his attempted frustration and would-be contravention. It has dropped upon us as the rain, without cost, and is as gratuitous as air. It is a priceless gift to us of the South. If it were to be paid for, at a fair estimate of value, many millions of dollars would not pay the bills. If it were to be taken away, the loss would be irreparable. Its aspects of good are so multifarious, as to defy enumeration, much less full and impressive appreciation and estimate.

The unsightliness of years of wash and denudation, are softened or obliterated; and lands, consigned by helpless despair, to supposed ruin, are reclaimed to utilization. Fields abandoned to disuse and consigned to non production in the estimate of man, are restored to fertility, or opportunities of utilization for profit, greater than the most valuable lands of the most noted grazing districts of the country. Areas so infertile, as to have been considered as forever waste and unworthy of consideration, are becoming fitted for uses of agriculture, future remunerative sheep-walks, or the seats of future most profitable dairying. Could these blessings drop on the North and East, they would be better appreciated, and could they be *purchased*, hundreds of millions of dollars would be gladly paid.

What some grasses have been and are yet in frontier-regions to the West, the grasses I am to describe, are, and will be to the South. But, there the comparison ends. The bleak and treeless plains, the drouths, the absence of water, the remoteness from market, the long and vigorous

winters, blizzards, snows, hail—all these and more, are concomitants of these blessings West. South are over mild winters, proximity to markets, unfailing streams and springs, and the future theatre of the most thickly populated area of consumers on the continent. Suppose a farmer in any of the New England States, or those between the Missouri River and the Atlantic Ocean, could have clover or Kentucky blue grass come into their lands without cost to them, and furnish good pasturage from April to November, that was unfailing for all this period; that no drought vanquished; that never got hard and unnutritious, but the more it was pastured, the better it got. Suppose, that the moment they took off wheat, oats or rye, a crop sprung up that made superb hay, and in great quantity, without any manuring, seeding or work; or if turned under, was a great fertilizer. Who would confer such a boon to agriculture? Who, that could, would not be immortalized, embalmed in in panegyric, and enshrined in the fervent and lasting gratitude of millions?

This, we know, sounds preposterously extravagant. Let us, therefore, test Japan clover, Lespedeza Striots, Bermuda grass, Cynodon Dactylon and Mexican clover, Richardsonia Scabra—by these gauges I have mentioned; more we might give. These are richer than gold mines: costing nothing to get at, and *inexhaustable*.

As is well known, Japan clover has "come in," in most of the Southern States. No one knows how? No one spends (at least needs not to spend,) anything to get it. It is in the rich and poor land; in the valley, on the mountain. Grows on the denuded knoll and in the bottom, in the densest shade; in the hottest sun. It will come in March, even earlier, (if climate brings it on,) and although killed back by cold spells, comes on again, so abundant are its seeds. It stays late, and requires many frosts to end its sustenance. Frequent grazing keeps it tender, palatable and digestible. It fattens the poorest cattle with wonderful rapidity. It makes superior milk, butter and beef. It contains only less than one per cent. less of albumenoids than red clover, and *over 15 per cent. more of carbohydrates*. Like red clover, it condenses a large per cent. of plant food from the atmosphere. It compares well with red clover as a fertilizer. Its ash contains eight ingredients of fertility—having nearly forty per cent. of potassium and its oxide, besides a large quantity of phosphoric acid and sulphuric acids, brought up from the sub-soil. Its value per ton as hay, with 14.3 per cent. as

moisture, is 17.44; surpassing Johnson grass, (a remarkably rich hay,) blue grass, orchard and others for hay.

Now, to enumerate nothing else, let the reader ponder all the above, and coming everywhere, and on lands considered heretofore worthless.

Now let us consider Bermuda grass. Unless the reader is well-read, or has seen the wonderful qualities of this grass, he will be apt to regard my statements as gross exaggerations. We ought to get Mr. Howard's work on grasses, and read the story of its enriching effect on worn-out lands. If its capacity as a restorer of our worn-out fields, were to be computed by the standard for computing the value of commercial fertilizers (which, of course, is the proper method of computation,) its value is inestimable. Let me give an extract from Mr. Howard's book, of a result. A piece of worn-out land was taken, which would have not produced more than one hundred pounds of seed-cotton, or 15 to 20 bus. corn, or eight to ten of wheat per acre. The sod of Bermuda had possession five or six years. The first crop of cotton (only half stand,) owing to the mass of undecomposed sod, eighteen hundred lbs. of seed cotton per acre; second crop of cotton, two thousand eight hundred pounds of seed cotton per acre; third crop, corn, (manured with cotton seed,) sixty five bushels per acre; fourth crop, wheat, forty-two bushels per acre. Is not that almost incredible? The writer, years ago, heard one of the most distinguished stock-raisers in the blue-grass region of Kentucky, who had lived in Mississippi, and who was familiar with the merits of both Bermuda and Blue grass, say, that the former was superior to the latter. And a re-course to the tables of analysis of the two grasses, will show the superiority of Bermuda in nutritive qualities.

It also makes a superior hay. There is no land *too poor for it*. We have seen it growing finely on the bare sand, on the border of the Gulf of Mexico: in the bare gravel in the road; on the washed and sterile hill-sides. No drouth kills it, and the *more it is pastured, the better*. It is beyond belief, the number of animals that small area will support. All stock like it exceedingly well; and, *you can keep in good condition, a working animal upon it alone*. It produces a great flow of milk, and makes superb butter. It fattens rapidly too.

It is superior to Lespedeza (Japan clover), in redeeming washes and holding soil. It will give pasture *almost* the whole year on the Gulf coast; and, I believe, at New Orleans *all the year*.

All good judges prefer it as a permanent pasture grass, to all others.

Mexican clover is a grass, that is making its appearance, pretty generally, in the pine-woods in Alabama, Mississippi, Florida and Louisiana. It seems working from the Gulf, *up the country*. Mr. McMurtrie's analysis shows it to be equal to clover as green food or hay; or says Dr. Phares, in his fine work on Southern grasses: It grows luxuriantly on the fine lands, and from six to ten feet in length, and much of the winter. It never needs any care to have it. *It just comes in on any cultivated land.* You lay by oats or corn-land, and *up it comes.* You cut it twice, (at least,) after oats. Next year it is ready again. Horses, mules, cows and sheep relish it.

It fertilizes the land as clover does. It is remarkable in fertilizers, the analysis of ash showing: lime 29,456; phosphoric acid 7,457; potassa 23,824!

It is a perfect gold-mine to our people in the pine-woods, if they will only believe it. Very imperfectly I have re-viewed these three grasses.

Now, there are fifty millions of acres in the pine-woods of the South, where these grasses are either now in possession, or will be. These lands have been considered next to worthless, after the pine wood or lumber have been taken from them. Upon a trip along the Coast recently, and reflecting how these grasses take there, I made up my mind that some day, that country would, or *ought* to be the great sheep walk and dairy district of the South. I could buy millions of acres at from 25 cents to \$1 50 per acre

The loveliest, unfailing, clear water streams and springs abound. Climate is incomparable. All sorts of fish in the gulf, and oysters, crabs and shrimps. Near good markets. Much of the country, oranges can be raised. Fruits and vegetables almost the year round. Hens lay all winter. Fuel going to waste. Finest wood (no burrs); and, sheep healthy and very fecund. What more need be said? All this country needs, is good, industrious men.

There is a great future before this Gulf-coast, between Mobile and New Orleans.

M. B. HULLYARD.

Maryland Farmer:

I have recently clipped my flock of 48 Cotswold sheep of all ages, from yearlings to 6-year-olds, realizing nearly 600 lbs. wool. My yearling rams are wonderful shearers, ranging from 13 lbs. to 18 lbs. each. The majority of them giving 17 lbs. each. I shall have a nice lot for sale this season.

My sales were good last year, and owe much of my success in that direction to advertising in the *FARMER*,—which is always welcomed with much pleasure; and recommend all persons who have stock, or anything for sale, to advertise in it. Will write you an article soon, which, I hope, will atone for my late silence.

Yours, &c., E. C. LEGG.

Kent Island, Md., June 13th, 1884.

D. J. Esq., of Georgetown, D. C., in renewing his subscription, says: "I could not afford to be without your Magazine, though I am only an amateur farmer. I often read one article worth the year's subscription, and therefore heartily wish you every success in your laudable enterprise."

MR. I L H, of Charlestown, West Va., another old subscriber, in renewing his subscription, writes us June 6th, that the wheat crop in his section is not up to the average, but thinks it will prove 1-5th short, and predicts the same for Maryland. He says, "corn is up well, but late, and now wants rain. Harvest begins about the 25th. Wheat will not be so low next season, I think. I would like you to call and see me and my farm, if you ever come up the Valley."

[Thanks for your kind invitation, and will certainly call on you, if we should visit your famous Valley of the Shenandoah.—ED. MD. FAR.]

DR. ROBERT WARD, F. R. C. V. S., of England, and Maryland State Veterinarian, owing to the large increase of his business, has removed his office from 13 North Paca Street, Baltimore, to N. E. Cor. West Baltimore and N. Paca Streets.

Consumption Cured.

An old physician retired from practice, having had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma, and all Throat and Lung affections, also a positive and radical cure for nervous debility and all nervous complaints, after having tested its wonderful curative powers in thousands of cases, has felt it his duty to make it known to his suffering fellows. Actuated by this motive and a desire to relieve human suffering, I will send free of charge to all who desire it, this recipe, in German, French or English, with full directions for preparing and using. Sent by mail by addressing with stamp, naming this paper. W. A. NOYES, 149 *Power's Block, Rochester, Y.*—*

For the Maryland Farmer.

Special Fertilizers.

The chief dependence of every farmer should be upon manures made upon the farm. However much other fertilizers may be lauded, there is nothing, all things considered, that is superior to good farm manure. There is no intelligent farmer that will deny the beneficial effects that come from action upon the soil; otherwise whence would come any necessity for plowing or cultivation other than what would be necessary for the suppression of weeds. It is the mechanical effect upon the soil in breaking it up and pulverizing it that calls for the use of the plow, the harrow, the cultivator, the hoe, or any other implement that acts upon it. In the application of special manures there may be a chemical action induced which is beneficial to the growing crop, but in the case of stable manures, made up as they are of vegetable and decomposable matter as well as chemical substances in solution, in addition to the chemical changes that are effected by the decay of the vegetable matter, a mechanical change is produced in the soil, which is very favorable to the growth of plants.

While it is advisable that the chief reliance should be placed upon farm-yard manures, at the same time it is frequently advantageous to employ commercial fertilizers. But in their use it should be borne in mind, that they possess two distinct values that are disproportionate. First the commercial value is the cost to the consumer in the market, while the second is its agricultural value, or the power that it possesses to increase the crop in consequence of its use. If this is not so as to render its value proportionate to its cost, no advantage comes from the use.

This is believed by a good many farmers to be the case; that the value of increase of crop, from the use of commercial fertilizers, is not equal or no greater than the expenditure, and believing thus they are manufacturing their own fertilizer, which is much more satisfactory in its effects, and at a cost of less than one-half what would be required for a similar article in the market. Samuel B. West, has this season made use of 1,100 pounds of bone, which with the other ingredients employed, has made between three and four tons of superior phos-

phate. He used from thirty to thirty-five pounds of acid to each hundred pounds of bone, and as a drier prefers charcoal dust when it can be obtained.

But in addition to this, he also mixed a small quantity of gypsum or land plaster, and some dry hen-manure, thus forming an excellent supplemental fertilizer to be employed as a stimulant in the hill for corn, potatoes or any other growing crops. But the most interesting point is that the cost was only about \$14 per ton.

WILLIAM H. YEOMANS.

Columbia, Conn.

THE ELEVENTH ANNUAL INTER-STATE PICNIC AND EXHIBITION, under the auspices of the Patrons of Husbandry of Pennsylvania, Maryland, West Virginia, New Jersey and Delaware, will open at Williams' Grove, Cumberland County, Pa., on Monday, August 25, 1884, and continue until Saturday, August 30th. Excursion rates at reduced fare will be arranged over the principal roads in Pennsylvania and adjoining States.

Agricultural and scientific addresses, by prominent farmers and statesmen, will be delivered on Tuesday, Wednesday, Thursday and Friday. Manufacturers of agricultural and domestic implements and machinery, and breeders of good stock will do well to make a note of this exhibition. This bids fair to be an immense gathering. For particulars, write to R. H. Thomas, manager Inter-State Picnic, Mechanicsburgh, Pa.

PAINT YOUR HOUSE.—"Everybody's Paint Book," a new work on painting just published, gives such careful directions for mixing paint of colors for outside or inside house painting, that any one can easily learn to do their own painting, and thus save the expenses of a professional painter. See description of this book in our advertising columns and send for it.

THE MARYLAND FARMER, one year, price, \$1.00; World's Cyclopaedia, a library in itself, price \$1.00. The two for only \$1.50.

MARYLAND FARMER

A STANDARD MAGAZINE,

DEVOTED TO

Agriculture, Live Stock and Rural Economy.

EZRA WHITMAN, Editor.

COL. W. W. W. BOWIE, Associate Editor,

141 WEST PRATT STREET

BALTIMORE, MD.

BALTIMORE, JULY 1st, 1884.

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Special rates for cover pages.

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Advertisements to secure insertion in the ensuing month should be sent in by the 20th of the month.

Our friends can do us a good turn by mentioning the MARYLAND FARMER to their neighbors, and suggesting to them to subscribe for it.

Subscribe at once to the Maryland Farmer and get the cream of agricultural knowledge,

To Our Patrons.

As we now are well on our 21st year, we are sure our old subscribers will see the justice and propriety of renewing their subscriptions for 1884, and in doing so, settle all arrearages, if any are due us.

We do hope, as we have no travelling agents, that every old subscriber and every friend of the MARYLAND FARMER will use his or her influence to obtain for this year as many additional subscribers as possible. To prove our desire to extend agricultural knowledge, at the least possible cost, we will furnish our Monthly Journal at the low price of \$1.00 per year, and give to each subscriber who pays in advance a nice premium of one of either of the following books:

KENDALS TREATISE ON THE HORSE,
SCRIBNER'S LUMBER BOOK,

SCRIBNER'S GRAIN TABLES.
Horses, Their Feed and Their Feet,—new.

And to such as will add 50 cents extra to the amount due, we will send a dollar book

PALLISER'S MODEL HOMES.

GARDEN AND FARM TOPICS, by Peter Henderson, Price \$1 50, or with *Maryland Farmer* for one year \$2.00. See notice in this number of this work.

THE WORLD'S CYCLOPEDIA, price \$1.00 or with *Maryland Farmer* for one year \$1.50. See notices elsewhere of this book in this number.

Such offers of premiums will reduce the price of the MARYLAND FARMER to almost nothing, postage thereon being pre-paid by the publisher.

New First-Class Sewing Machines
at Half Price.

PAYABLE IN SUBSCRIPTIONS TO THE
"MARYLAND FARMER,"

CLUBBING.—For the purpose of aiding our subscribers to an economical benefit of other Journals in our line, we have consented to club with the following for 1884:

The Breeders Weekly Gazette, Chicago, Ill., price \$3.00; with Maryland Farmer, \$3.25.

American Angler, price \$3.00; with Maryland Farmer, \$3.25.

Live Stock Monthly, Portland, Me., price \$1.00; with Maryland Farmer, \$1.50.

Poultry Yard, Hartford, Conn., price \$1.50; with Maryland Farmer, \$2.00.

☛ All payable in advance.

SPECIAL NOTICE.

New subscribers who pay one year *strictly in advance*, will also receive free, in connection with the MARYLAND FARMER, twelve consecutive monthly numbers of the *Poultry Post*, an illustrated and thoroughly practical paper, devoted entirely to the poultry interest. The *Poultry Post* is not an advertising sheet, but a legitimate publication, containing in each issue twelve or more columns of just such practical information upon the breeding, rearing, feeding, housing and marketing of poultry, as is needed by, and useful to every farmer, and it will be furnished to new subscribers on the above terms.

NOTICE!—In our last number, we enclosed bills to all, who had overlooked payment of their subscription, and by an oversight we neglected in some cases, to enclose also a printed envelope with our full address thereon, to enable subscribers to remit to us, or drop us a line of recognition at least.

In the present number, those in arrears, who received bills in the last issue, will find an envelope, in which to enclose amount due, or write an explanation. We will add that it is very important, that all who have not paid in advance for the year, should let us hear from them at once, as the price of the MARYLAND FARMER is so low, that it is absolutely necessary it should be promptly paid. It must be apparent to all, that such a Journal cannot be published without money to aid it.

A Visit to Old Point Comfort.

There are few, if any, Summer-Resorts that are in easy reach of Baltimore, more pleasant and attractive than the Hygeia Hotel of Old Point Comfort, at all seasons, particularly in early summer. A few days ago, not feeling well as usual, I, with a friend, took a state-room in the splendid steamer "Virginia," of the Old Bay Line. On board this well-managed boat we were as comfortable as we could possibly be at our own home. On being called the next morning we arose to find ourselves at our destination, and were soon met after reaching the Hygeia Hotel by Col. Yerby, well known to travellers, and by him shown to our quarters on the first-floor of this grand hotel. The large windows of our room opened upon a wide veranda, from which, a fine view of water was presented, dotted all over with the activity of life shown by the numerous steamers and sail-boats, &c., from stately war-ships, to the little row-boats. Here, the pure atmosphere is always refreshing to the wearied man of business, or to those who languish with ill health. Of the history of this old place, or the striking improvements lately of its surroundings, I will not stop to detail as they have so often been recorded, but will say, that while I have often visited this pleasant Resort, in my drives about the grounds of the "Soldiers Home" and the "Hampton Norman and Agricultural School," I have never seen the places showing better, and looking more beautiful. The flower and vegetable gardens were in perfect order, and delightful to behold. The weather being warm and my health not the best, I did not see as much as I desired, nor stayed as long as I wished, but soon returned to my rooms at the hotel.

After resting, I strolled through the noted Fortress Monroe and its elegantly kept grounds, and enjoyed the sight of the Southern Live Oaks that here flourish, though it is the limit of their natural lati-

tude. Beyond this section northward they will not grow. We saw among other objects of interest, the casements in which Jeff. Davis was held a prisoner for some time, after the late unhappy war between the sections had ended. After a rapid gain of health and vigor by our trip, we cannot close without suggesting to all our readers, the propriety of making a visit for pleasure or health, to this historic and lovely place. They will be well repaid, both by the comforts of the Hygeia hotel, and the splendid trip by sea on board one of the steamers of the Old Bay Line, from Baltimore to Old Point. W.

Oleomargarine.

The Legislature of Maryland passed a stringent act against the sale of 'bogus butter,' and several merchants of Baltimore city were indicted under it, for violation of its provisions. Under the proceedings that followed these cases, the Supreme Bench of Baltimore, through Chief Judge Brown, lately decided the said statute to be indefinite and invalid, for reasons assigned, except the second section of the same, so far as it relates to the offense of having oleomargarine in possession. So that the law is a nullity, provided the party exposing this article for sale, has complied with the law regarding the proper marking of the article. Neglect to do so, can be punished by a fine of \$100. In future, pure butter can alone be sold as such, but it is not unlawful to sell oleomargarine as such.

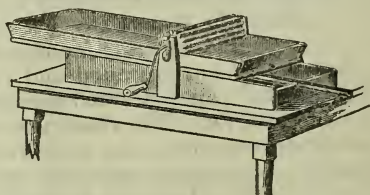
HARFORD COUNTY AGRICULTURAL SOCIETY, held its spring meeting at Bel-Air, on the 3rd of June and continued for 4 days, which we are glad to hear was a success, considering the busy-season for farmers, in which it was held.

The exhibition was strictly confined to agricultural machinery and implements, carriages and trials of speed. The latter were very interesting. The display of machinery was large and fine.

Aberdeen Angus for the Eastern Shore of Maryland.

Hon. Samuel T. Earle, has purchased from Mr. W. H. Whitridge of this city, a six month's old bull calf, said to be the first of this breed introduced into that section of our State. We like to hear of the introduction of various sorts of improved stock into the different counties of Maryland, for it proves that our breeders are fast becoming converts to the fact, that there is much in the *breed*, and that it costs no more to keep good stock than poor stock, and to feed well, improved breeds are more economical and profitable, than to half starve any kind.

Automatic Butter-Worker.



This cut explains the ease and simplicity of this new implement, so necessary to all dairies both small and large. It not only saves labor, but does the work of butter-working better and cleaner than can be done by the paddle or the hand. See advertisement in this number of the FARMER, by the makers, W. E. Lincoln & Co.

PAINT YOUR BARN.—It is not necessary to employ a professional painter. "Everybody's Paint Book," a new work just published, will tell you how to mix the paint for this purpose and how to apply it. See full description in advertisement in another column.

BLIGHT.—Mr. Wm. Saunders, Superintendent of grounds and gardens of the Agricultural Department at Washington, says that no part of a tree coated with lime-wash has ever been affected with the *Blight*.

HORTICULTURAL.

A Grape Arbor.

Expensive trellis for grapes is not necessary. Single stakes are sufficient for securing fruit. But, about the home grounds, trellis and arbors may be made exceedingly attractive. In front of our ol-

ivary across the base is 12 feet. First measure this, and dig a narrow trench in a circle 12 feet across. Set four poles at opposite points of the circle, and fasten with stout wire at the top. Then place the other poles about 18 inches apart at the base, leaning the tops against the tops of the others. When all the poles are in position,



ivary, we built an arbor as shown in the illustration, which is a thing of great beauty when clothed with the foliage of the grape vine. And the rich, purple clusters of fruit, add much to the structure as fall approaches. This arbor is the coolest place on the fruit-farm, and is a great resort for old and young. It is constructed of 27 poles, (cut from the thickets in the woods) 16 feet long, one foot in the earth to hold the arbor firm in the face of high winds. The distance

between the tops together with wire and fill in the trench. Then cut out two poles at a proper height for the doorway, and spring the trunk of an old, wild vine over the top to form an arch and the work is done. Plant strong growing grape vines and climbing roses all around it.

For the above cut and explanation, we are indebted to Green's Nursery Co., of Rochester, N. Y.

For the Maryland Farmer.

Home Nurseries.

I notice in the *FARMER* for April, (page 104.) that you recommend purchasing fruit trees of "the nearest, reliable nursery," in which case, as you say, "the trees will have been raised as nearly as possible under the same conditions of soil and climate, as those into which they are transplanted."

To this advice, I unhesitatingly subscribe having been lead long ago to the same conviction by some costly experience. With few exceptions, I believe it is always best to procure trees and plants of a woody nature, for transplanting, as near home as possible. But, perhaps *you* will not so readily endorse what I may here advance, in regard to *home* nurseries.

Not only do I believe it best to procure trees from "the nearest reliable nursery," but I believe that, in many cases, it would be much better, and lead to far more satisfactory results in the end, if farmers would raise their own trees at home. It is a well-known fact, that the farmers of *old* Virginia, and doubtless of the older parts of Maryland also, formerly raised their entire orchards, of many hundred trees each, *from the seed*, doing all the planting, selecting and grafting, with their own hands. There were none but the home nurseries in those days, consequently every man was placed upon his own resources and skill, and the art of propagating fruit trees descended from father to son along with the farm. It is a patent fact, too, that the *old* orchards of the Atlantic sea board, have never been surpassed for health, longevity, and productiveness. It may have been due in part to the new soil, but not all.

But were there no advantage to be gained on this score, still, as a matter of economy, not only in the cost of trees, but far more in the time often lost from purchasing stock that never turns out well, it were cheaper for the farmer, as a rule, to grow his fruits from the seed just as he grows his crops. Of course, it is not meant that every one on taking a new farm, should wait 'till he can grow the trees, before he sets out an orchard. In this case it is better to buy of some neighboring nurseryman, and save two or three years of time by it. But it is seldom that a farm changes hands, which is entirely without an orchard of some sort, and generally it only requires some little renewing every two or

three years, to keep an orchard into bearing indefinitely. In this case, the farmer could easily grow a few hundred trees of his favorite kinds, to keep up the supply of fruit, or to fill a gap among the old trees. By planting a short row of seed in his garden and grafting a few dozen trees annually, the trees would cost hardly anything, and the farmer might set out a new orchard of an acre or two every spring, or as often as desirable. The advantages of this practice are obvious.

But there is another point in regard to fruit trees, not commonly considered, but which, speaks much in favor of the home nursery. It can be shown in physiological grounds, that a fruit tree is all the better, healthier, truer to kind, longer lived, and more productive, when *the stock*, as well as the graft, *springs from the same variety*. In nursery culture, this fact is entirely ignored, because perhaps, impracticable. But with the farmer, who desires only a few dozen trees, it may be of each kind, this is entirely feasible. It is easy to get a few seed, as well as a few grafts from the variety it is designed to propagate. This should always be done; and if all interested in rearing fruit trees, would pay attention to it, orchards would soon show a manifest improvement in every particular that helps to make an orchard valuable. I call attention to this now, and hope that farmers and others may avail themselves of the hint, satisfied, as I am, that it would greatly enhance their interests.

In thus advocating *home* grown trees, let no nursery-man accuse me of antagonism. There is, and will ever remain, demand enough for legitimate nursery stock. Only do not let them attempt to grow *everything* for the farmer, and all will be well. There are hundreds of freeholders so situated, as to be unable ever to raise a tree for themselves. But many farmers can do otherwise. B. W. J.

Surry County, Va.

Japan clover has lateral branches at intervals of about three-quarters of an inch, and also from one to five husks, within which a like number of seeds are found of about the same size as red clover seed. The seed matures in the late summer and during autumn, and the seed are so abundant they fall to the ground and are scraped up for future sowing. It rapidly multiplies itself, gradually spreading to other fields.

An Experiment with Gypsum.

Several plant pots were filled with strong, rich manured garden soil, and set with red clover plants. To one portion of them, gypsum was applied to the surface of the soil; to another, on the leaves only; and a third was not treated with it. They were watered alike for several weeks, but no difference whatever was seen in the growth of all the plants, indicating that plaster is of little use on highly manured land. Other pots were filled with soil of medium fertility, more sandy in character, and which had not been manured. Red clover seed was planted in these pots, and after the plants alike were up, some were treated with plaster and others not. As soon as the plants were in the second leaf, the plastered ones had taken the lead, and for several weeks were about double the size of those not plastered, or so long as the regular watering and growth continued. The watering was then suspended, until the soil had apparently become quite dry, and the plants had withered and fallen, the unplastered plants being the most withered. Both were then copiously watered. In a short time the plastered plants were restored, assumed their erect position, and appeared as vigorous as ever. But the unplastered ones presented no appearance of life, and were entirely dead. The experiment indicated the value of plaster on common soils, and especially those of rather light character, in promoting vigor of growth and in lessening the effects of severe drought.—*Ex.*

FLOWERS FOR PERFUMERY:—Some idea of the magnitude of the business of raising sweet scented flowers for their perfume alone may be gathered from the fact that Europe and British India consume about 150,000 gallons of hankerchief perfumes yearly; that the English revenue from eau de cologne is \$40,000 annually, and that the total revenue of other perfumes is estimated at \$200,000 annually. There is one great perfume distillery at Cannes, in France, which used yearly 100,000 pounds of acacia flowers, 140,000 pounds of rare flower leaves, 32,000 pounds jasmine blossoms, 10,000 of tuberosa blossoms, and an immense quantity of other material.

German Millet.

Another year's observation and experience in the cultivation of German millet, corroborates the opinion previously formed that in the quantity and quality of fodder grown, this plant is justly deserving of the attention, that it is receiving at the hands of progressive and practical farmers. In fact, I know of no other two forage plants, that will produce a larger quantity of appetizing fodder, that can be grown on the same plot of ground in one season, than may be raised from winter rye and German millet. I admit that more tons of corn fodder, can be produced on a piece of ground than rye or millet yields, but it is not so keenly relished by live-stock, and when fed in a green condition, will cover only a short period of time. To those farmers who seek to increase the amount of fodder now produced, let German millet be tried another year.—*Husbandman.*

RETURNING TO JOURNALISM:—It gives us great pleasure to notice that Mr. Joseph Harris, the former editor and proprietor of the *Genesee Farmer*, has returned to journalism, as one of the Editors of the *American Agriculturist*. Mr. Harris, as a thoroughly educated farmer and able writer, has too wide a reputation, to require at our hands any eulogy. We hope he may long be spared to give his ability and experience in aid of the *Agriculturist*, and promote the great interest, to which he has devoted so many years of earnest usefulness.

THE De Laval Jersey Herd, Glen Ridge, N. J. (near Newark), offers registered Jersey bulls of the best breeding, of ages ranging from three months to three years, at prices within the reach of every farmer, and of strains of blood that will suit the most fastidious breeder. Those wishing bulls to head their herds or to improve their strains of blood, and farmers who desire to raise the value of native or other stock by a cross with the Jersey, will find this an excellent opportunity. Females of all ages are also offered.

For the Maryland Farmer.

Maryland Agricultural College.

Permit me, Messrs. Editors, to express through the columns of the MARYLAND FARMER, the great gratification which the writer experienced on the occasion of a brief visit to the Maryland Agricultural College, made a few days ago.

From the misrepresentation of those, who from interested or selfish motives, have labored so diligently the past few years to prejudice, and poison the public mind, as to the condition and the workings of the college. Many, no doubt, are under the impression that the farm is a waste, the buildings dilapidated, and the college a mere sham, the course of studies irregular, and neither order or discipline observed. Those who do so think, should do as the writer has done, visit the college and judge for themselves.

They will find the farm in good condition, and as well conducted as the limited means (now that the State donation is withheld,) will permit. The garden—both fruit and vegetable—that most important portion of a farm, is in most admirable order. Every variety of vegetable, that is cultivated in our region of country is represented; cabbage, tomatoes and sweet potatoes are remarkably fine; and the fruits, particularly grapes give promise of abundant yield, and every thing shows the hand of both skill and care.

The buildings are in good repairs; everything is clean and wholesome. Kitchen and laundry are supplied with the requisite fixtures, evidence that they are under careful supervision. The recitation room, and the chambers of the students are kept in thorough order, and well ventilated. The table is supplied with healthful and proper food, and every thing is evidently done to promote the comfort of the students.

The course of studies, is the system which has been regularly pursued, since the foundation of the college, and directed by competent professors. The discipline is firm, and the regulations of the college are impartially enforced. Within the past four months, several students have been expelled for violation of Rules, which called for their expulsion. The President and faculty deemed it—notwithstanding the needs of the college—far better to expel

the guilty-students than to return them to demoralize their companions.

Under the active, energetic and wise administration of the college, by President Augustin J. Smith, all that is necessary to place the college in the condition, which it was the intention of its founders that it should be, is the friendly support of the farmers and planters of Maryland. And, that support, will most surely be rendered, if they will only visit the institution and judge for themselves, and not be impressed by the declarations and writings of those, who are, for reasons best known to themselves, hostile to the college.

A FARMER.

By the way, I must not forget to mention the promising field of wheat, now growing on the college-farm. It is from Fultz seed following a crop of oats, in corn the previous year, planted on a sod which had yielded a fair crop of grass, having been previously in wheat, which had a moderate dressing of a fertilizer, and the grass seed, clover and timothy sown on the wheat. No other manure or fertilizer had been used afterward, upon either the grass, corn or oats, until the past fall, about 400 lbs. to the acre of dissolved South Carolina rock was applied to the wheat. Does not this application look very much like, as if the college authorities have been converted to Dr. Sharp's theory in regard to fertilizers, from reading his able essays on this subject, which have appeared in the MARYLAND FARMER?

Journalistic.

The Monticello Farmer and Grape Grower, a neat monthly, published at Charlottesville, Va., price \$1.00 per year, devoted to grape growing, stock raising, and manufactures in the Piedmont region of the old dominion.

SHEEP FARMER.—A monthly journal, profusely illustrated and devoted to sheep raising, and the wool interest, deserves the patronage of all interested in these matters. Published in Chicago, Ill., at \$1.00 per year.

"THE ILLUSTRATED AUSTRALIAN NEWS."—Published every four weeks at Melbourne, Australia, with two supplements per year, splendidly illustrated, and one large colored engraving. The reading matter most excellent and the wood cuts first rate. Price 7 shillings per year, including postage.—American Agent, J. M. Herd, 261 Broadway, N. J.

Fine Crops at the Maryland Agricultural College.

The quarterly meeting of the Board of Trustees was held at the college, on the 17th of June, and from the report of the President, we make the following extracts, in regard to the farm and farm crops. At this time, 25 acres in wheat, admitted to be the best looking crop in that section; 12 acres of oats, 8 acres of rye, 28 acres in corn, about 45 acres in grass and the balance of the farm is used for grazing. All in good condition and looking finely. The garden consists of about 5 acres. The college was supplied this spring with all their early vegetables from the garden, before any thing of the kind was offered in the markets of Baltimore grown in Maryland. He reports now in the garden 11,000 sweet potatoe plants, 2,500 late cabbage plants, 300 hills Lima beans and a good supply of every kind of vegetable usually grown in the garden. The grape crop was a failure last year, and the vines were supposed to be no longer of any account, were trimmed and worked up this year, and the crop will be an immense one. The apple, pear and peach orchards were also trimmed and worked up last winter and spring, and now are all in heavy bearing. The buildings have been repaired and the wind-mill put in complete order; new fences made and old ones repaired.

President Smith seems to be giving his personal attention to the farm, as well as to the important duties appertaining to his office. The whole place, buildings and farm, showed much improvement. Most of the Trustees who were present at this quarterly-meeting, made a thorough investigation and travelled over the farm, and reported the condition of the whole as highly commendable, they never having seen it look so well before. Notwithstanding the with-holding by the State of its appropriation, and the efforts of some ac-

tive enemies to do the college harm and injury, we think the State has good reason to be thankful and proud of the present condition of the Maryland Agricultural College. The school at present is not large, but we venture to say that no better discipline is to be found at any school in Maryland, or elsewhere than prevails at this college.

We trust the day is not far distant, when this college will take rank with any similar institution in this country, and our farmers will be happy in the possession of such a complete farmer's college in their midst.

Catalogues Received.

FROM the Northwestern Importers and Breeders Association of Minneapolis, Min., a nicely printed and well illustrated catalogue descriptive of a large number of imported bulls and cows, and much other useful matter connected with the history and valuable qualities of this famous Dutch-Friesian breed of cattle.

PREMIUM LIST, &c. of the 7th Annual Fair of the Eastern Shore Agrl. Society, near Bogg's Wharf, Accomac Co. Va., to be held August 26, 1884, and continue four days.

WE have received from the Zimmerman Manufacturing Co., of Cincinnati, a handsome catalogue, which explains fully the merits of their Fruit and Vegetable Evaporator. Any one interested in that industry, will receive the catalogue free by writing for it. It contains valuable information.

PREMIUM LIST of Indiana State Fair for 1884, to be held at Indianapolis, Sept. 29th, to Oct. 4th. Great inducements are promised, by the managers of this important Western State Fair.

FROM Joseph Harris, his catalogue of Essex pigs, Cotswold sheep and garden plants, Rochester, N. Y.

LIST OF PREMIUMS, &c. of the great State Fair of the New York Agricultural Society, to be held at Elmira, Sept 4th to the 10th, 1884.

FROM Vilmorin, Andrieux & Co., French Flower Bulbs. Paris, France, or to the London office, 24 Mark Lane, E. C. They have also an order house in New York, we think.

DON'T FAIL to call and examine the **Rawson Mower**, on exhibition at the "Maryland Farmer" Office.

An Enormous Yield of Strawberries.

The *Salisbury Advertiser* makes the following remarkable statement:

"The strawberry season for 1884 is over, and the growers have great cause of satisfaction. It is estimated that during the last ten days of the season, at least 10,000,000 quarts of berries were sent over the Delaware Division Railroad, which at the lowest calculation netted \$500,000 to the growers and \$200,000 more to the laborers who picked the fruit. In other words, one part of the Peninsula, containing barely 250,000 inhabitants, realized \$700,000 on a single crop of berries, which is at the rate of almost \$3 for each man, woman and child in the district. This is a remarkable showing; and for the amount of money invested, the area of land in berries and the labor and time expended it is almost marvellous."

[When there is so much land for sale, at reasonable prices, in this beautiful and healthy region, lying upon the sea-board, and so accessible to the great cities of Baltimore, Washington, Philadelphia and New York, and which section may emphatically be called the fruit and trucking garden of the United States, it does seem strange that those, who are looking for comfortable homes should pass it by and "go West," or down to the tropics of the United States, far removed from markets and the pleasures attached to a homestead in old Maryland or Delaware, where the products of the soil can at little or no cost of transportation be put on the markets, where the highest prices are to be had.—EDS. MD. FAR.]

Condition of the Crops.

According to the Agricultural Department Report for 1st of June, we find the following estimate in regard to some of the crops to be on that date of the present year, as follows: The general average condition of the cotton crop is 87, against 86 in June of last year, and 89 in 1882.

SPRING AND WINTER WHEAT.

The increase in the area of spring wheat appears to be nearly 900,000 acres, or 9

per cent. No part of the Pacific coast area is included as spring wheat. The largest increase is in Dakota, amounting to about 400,000 acres.

The condition of spring wheat averages 101 per cent., being up to the standard in nearly every district.

The condition of winter wheat continues high. The average is 93, against 94 a month ago. It was 75 in June last year, and 99 at the same date in 1882. Since the last report the Illinois average has declined 11 points, Ohio 3 and Kentucky 3. Indiana, Michigan and some other States show higher condition. The average of condition of the principal States are:—New York, 98; Pennsylvania, 100; Maryland, 99; Georgia, 93; Texas, 98; Kentucky, 96; Ohio, 82; Michigan, 91; Indiana, 91; Illinois, 76 and Missouri, 90.

OATS AND OTHER CEREALS.

The increase in area of oats is 4 per cent. The average of condition is 98. It was 96 last year and 101 in June of 1882. The averages are highest, as is usually the case, in the States north of the fortieth parallel, coming up to the standard in all of the Western States.

The general average of rye has advanced from 96 to 97.

The barley average has fallen from 101 in May to 98. It was 97 last June, and 91 in June, 1882.

SINCE our last issue, we have had a very agreeable visit from our brother of the *New England Farmer*, A. W. Cheever, as he embraced Baltimore in his trip through the Middle, Western and Southern States, with the special purpose of examining the country, its systems of cultivation, and informing himself generally of the condition of its agriculture and substantial resources. We accompanied him as far South as Old Point Comfort, with which he seemed much pleased.

LADIES' DEPARTMENT.

For the Maryland Farmer.

SOLITUDE.

How sad and cheerless is the lot,
Of those, who have not here a spot
To call sweet home: to whom are given
No kindred union this side Heaven.
Poor, friendless souls, who wander far,
Without a single guiding star.
No parents, brothers, sisters dear,
O'er all their woes to shed a tear.
Ye, whose warm hearts with love o'erflow,
For such, compassion, friendship show;
'Twill lighten many a heart-felt sigh,
And dry the tear in sorrow's eye.

M. G. H.

Patchwork and Crazy Quilts

are the latest *craze*, and ladies will be glad to learn of any economy in this art needle-work. We have just been shown an ounce package of "factory ends called 'waste' embroidery," good silk, beautiful colors, and in quantity as much as is obtained in from 75 to 100 skeins of regular goods. These factory ends can all be used, and are highly prized for their economy. Any of our subscribers may obtain a similar package, by forwarding 40 cents to The Brainard & Armstrong Co., 621 Market Street, Philadelphia.

[There is no humbuggery in this. It is certain that ladies engaged in embroidery, or the frequent use of sewing silk, will find it to their interest to embrace the above offer. We know of one lady, skillful in such work, has used "waste," and pronounces it equal for all purposes to silk sold commonly at far higher price, and therefore very economical to use it in embroidery.—Eds. MARYLAND FARMER]

What to do While Waiting for the Doctor.

Dr. J. G. Wiltshire talked to a large gathering of young men, in the parlors of the Young Men's Christian Association Building, Baltimore, lately, on "Surgical Emergencies." He discussed the subject of hemorrhages quite freely. To stop bleeding of the nose, he said, plug the nostrils well and far back with cotton, so that the blood will not flow down into the stomach; raise the patient's hands; put some cold body at the back of the neck, and be sure not to lay the patient down. Bleeding from the lungs may often be remedied, by simply keeping the patient perfectly quiet. Facial hemorrhage may be stopped by pressing the facial artery, which will

be found an inch in front of the right of the lower jaw. Bleeding of the arm may be stopped by pressure on the artery underneath the biceps muscle. Many soldiers have had their lives saved by placing clay upon the wound; it tends to coagulate the blood and stop the hemorrhage. When anyone faints in a crowd, first see that he or she is kept in perfect quiet: make room and open the windows; allow the patient to lie flat on the floor, and do not raise the head, rather elevate the hips, so that the blood, purified by fresh air, may return to the brain. If you are bitten by a snake, tie a ligature above the wound, scarify the part, and if your teeth are good, and you have no abrasures on your lips, suck the wound; meanwhile plenty of whiskey should be taken. The bite of a mad dog should also be sucked and well scarified; use a hot application to cause the blood to flow freely; try and persuade the patient that the dog is not rabid, as fear often hastens hydrophobia. The stings of a bee, wasp or hornet, are more painful than harmful, treat them with ammonia; the alkali neutralizes the acid from the sting. When anyone swallows laudanum, an emetic should be at once given—salt or mustard and hot water; slap the patient vigorously and frequently on the back and palms of the hands, with a wet towel; give some hot coffee and wash out the stomach.

Domestic Recipes.

THE farmer who has a neat, well kept garden is almost sure to have a neat and well kept farm, a comfortable and well appointed home, tidy out-buildings and stock in good condition; and the housewife who takes pride in the garden generally, has a home to take pride in and to be proud of.

To destroy moths in carpets, take a wet sheet or cloth, lay it upon the carpet and then rub a hot flat-iron over it, so as to convert the water into steam, which permeates the carpet beneath, and destroys the life of the grub.

HICCUGHS.—It may not be known to every person that is troubled with hiccough, that a lump of sugar saturated with vinegar, will stop it almost instantly.

AN ODD SALAD:—Bananas and oranges sliced and mixed in a salad bowl, may be made into a delicious salad, by pouring over them a dressing made thus: To the juice of two oranges, add one gill of sherry and two ounces of sugar, and the white of one egg; heat to the boiling point,

then let it stand where it will not boil hard, but will remain simmering for five minutes. Strain through muslin. If you do not care to use wine, it may be omitted and water used instead. After this dish is prepared, it should be placed in an ice box, or a very cool closet, until it is put upon the table.

RICE WAFFLES.—One and a half pints of boiled rice, one and a half pints of flour, half a teacup of sour milk, half a teacup of sweet milk, one teaspoonful of soda, three eggs, butter the size of a walnut, and salt to taste. By adding to the above recipe, an extra cupful of milk, the batter becomes the proper consistency for rice pancakes.

THE BEST WHITEWASH.—The following recipe is used by the United States government for whitewashing lighthouses. It will last for five years, and is as good as paint, and very much cheaper: Slake half a bushel of unslaked lime with boiling water, keeping it covered during the process; strain it, and add a peck of salt dissolving in warm water; three pounds of ground rice put in boiling water, and boiled to thin paste; half a pound of powdered Spanish whiting and a pound of clear glue, dissolved in warm water; mix these well together, and let the mixture stand for several days. Keep the wash thus prepared in a kettle or portable furnace, and when used, put on as hot as possible with painters' or whitewash brushes.

Publications Received.

POPULAR NEW SONGS AND MUSIC, from Oliver Ditson & Co., 449 and 451 Washington Street, Boston. We have received several of their lately published songs, among which are "Fairy Land," "Spring," "The Old Well March," "Selections for the Banjo," &c. Those cultivating their musical talents, would do well to communicate with this popular publishing house.

THROUGH Mr. Otto Sutro, "Song Worship," published by the above mentioned firm, which is adapted to the Sunday-School Scholars, and must be a valuable collection for them, it being almost indispensable to both teachers and scholars of such praiseworthy schools.

"ONE THOUSAND POPULAR QUOTATIONS,"—Comprising the choicest thoughts of eminent writers of all ages, together with nearly 300 original and appropriate selections, suitable for autograph albums, compiled by I. S. Ogilvie, & Company, 31 Rose St., N. Y. Price 25 cents.

"SUPERIOR FISHING," by Robert B. Roosevelt, Esq., published by Orange Judd Co., 751 Broadway, N. Y. Price \$2.00. This is a book of 350 pages, neatly illustrated and printed in the usual elegant manner, that characterizes every publication of that popular publishing house. The author is too well known from his former publications to need a word from us, beyond our high commendation of the style and matter of this last addition to his works. The present volume will be read by all sportsmen with avidity, and furnish to the general reader, great pleasure by its perusal.

The present book treats of a pleasant fishing tour in Northern waters, the methods of fishing for Bass, Blue Fish, Spanish Mackerel, Salmon, and indeed all game fishes. It has a most appetizing Chapter on "Cookery for Sportmen," giving intelligible recipes and directions for cooking and eating game in the woods. We shall avail ourselves hereafter of some of these hints, for the delectation of our readers. It is a most excellent book and we heartily commend it to all, as pleasant and instructive reading during these warm days especially.

AGRICULTURAL PRINTING.

Having all the various Cuts needed for embellishment, we are prepared to Print and furnish Premium Lists, Tickets, &c. for Agricultural Fairs, with dispatch, elegantly Printed and Illustrated, upon very reasonable Terms, as we make Agricultural Printing a Specialty.

Duffy's Malt Whiskey.

One of the *exciting* subjects discussed at present in our city appears to be DUFFY'S MALT WHISKEY. There must be some great medicinal quality about the article or there would not be such a demand for it, as to force the proprietors to look out for larger space, and necessitate the removal of their sample room from 117 W. Fayette street, to the corner of Calvert and Baltimore streets. See their advertisement in this number and in our next issue, the proper notice will be given of their removal to their new quarters.

Live Stock Insurance Company of Balto.

In calling attention to the existence of this useful institution as advertised in this number, we cannot withhold our full commendation as to its meritorious efforts to make good to insurers, losses that are often extremely ruinous to the poor man. The loss of an only horse or cow is more grievous to the owner, oftentimes than that of a dwelling or costly ship would be to the millionaire. But seldom it is, that fire or storm brings total loss to the capitalist, for he usually has his property fully insured. By the present company every man on paying yearly a small premium can be nearly re-imbursed should misfortune of disease or accident deprive him of the only means of support in many cases. It is literally the breaking up his means of support if the poor drayman loses his horse or a poor woman loses her only cow. By insuring in this company, he or she might feel safe. So too with the farmers generally in regard to their improved stock. We earnestly call attention of farmers and all parties concerned to the People's Mutual Live Stock Insurance Company, S. W. corner South and Water Sts., Balto.

Industries of Cities.

WE give the following very interesting statement from the No. 8 June Report of the U. S. Agricultural Department, prepared mainly by Mr. J. R. Dodge, Chief of the Statistical Division:—

"The regret is often repeated in rural circles, that boys will leave the farm for city life. It has been shown heretofore that the proportion of farmers is slowly decreasing, and that this is for the best good of agriculture. It has, at the same time been shown, that the supply of farm products, is increasing by use of labor-saving implements, and (it is hoped) by better cultivation. Then there is no need for regret that all sons of farmers, should not elect to be farmers themselves. Some have inventive genius, and a taste for mechanical pursuits, some manifest a penchant for trade, and

others a preference for professions. A distribution according to natural bent and innate aptitudes will lead for better results, and leave fewer poor farmers to occupy a position, for which they have neither taste nor qualifications.

An examination of the business of cities shows, that they are occupied for other purposes than speculation and petty swindling, however severely they may be cursed by the presence of those who prey upon honest industry.

In fifty cities of largest population, there were nearly 8,000,000 people in 1880. Of these, 3,000,000 and more were "workers," in addition to the wives and older daughters, who were house-keepers, and the children, the aged and infirm. It may be supposed that most of these workers were in commerce or transportation in these fifty great "marts of trade." By no means—for the larger proportion are artesans and operatives connected with the great manufacturing class. New York itself, has 42 per cent. directly engaged as artificers, and but 27 per cent. in trade and transportation together, and the annual value of the products is the princely sum of \$472,926,437. Instead of handling a few hundred millions in foreign goods, they make an equal value of domestic goods, a large proportion of which is labor.

So we find in these fifty cities an average of 43 per cent. in manufactures, 1 per cent. in agriculture, and 24 per cent. in trade and transportation. As the remainder are in domestic service, distributed among these classes, but not enumerated with them, and professional people dependent upon all these classes, it appears that fully six-tenths of the population of these cities are supported by manufacturing production; *i. e.*, five millions of a population of less than eight, derive their incomes from the productive industries. Thus the great cities of the country, are not so much "marts of trade" as "centers of industry."

Then follows a table showing these proportions by cities:

The value of annual production of this army of city workers, in various forms of fabrication, is the magnificent sum of \$2,728,540,452, three or four times as much as the entire value of foreign goods brought into this country, and paid for largely by the earnings of domestic industry. It is seen, that New York and Brooklyn create

manufacturing values much larger in volume than all the values of foreign goods, imported by their merchants.

The following table gives the details of this production for the trade of the United States:—"We have not room for this table.]

This manufacture, which supports about 5,000,000 people, is nearly half of the total product of manufactures in the United States, which, together with the mining industries, represents one-third of the entire population of the country."

THE POULTRY-HOUSE.

The Poor Man's Bird.

The duck is peculiarly the poor man's bird; its hardiness renders it so entirely independent of that care, which other fowls require; and indeed, all those classes of humble life, who have sloppy offal of some sort left from their meals, and do not keep pigs to consume it, ducks are the best to save waste for them. Even the refuse of potatoes or any other vegetable will, with a little bran meal, satisfy a duck, which it thankfully accepts, and with a degree of good nature which it is pleasant to contemplate, swallows whatever is presented to it, and very rarely occasions trouble. Though fowls must be provided with a roof and decent habitation, and supplied with corn,

which is costly, the cottage-garden waste, and the snails and slugs which are generated there, with the kitchen scraps and offal, furnish the hardy ducks with the means of subsistence. And at night they require no better lodging than a nook in an open shed. If a habitation be expressly made for them, it need not necessarily be made more than a few feet in height, nor of better materials than wattles and clay-mortar, a door being useless, unless to secure them from thieves. —Doyle's Domestic Poultry.

Fumigating Hen Houses.

This is an important function for farmers and breeders. The *Poultry Bulletin* lays down a very simple rule. First drive all the hens out, see that none are in the nests or concealed inside the building. Shut all doors and windows, ventilators, &c. tight. Now, take an old iron or earthen pot, anything that heat will not effect, and put a handful of rosin into it, light the rosin, and when it is burning, freely pour over it a pound or two of sulphur; as soon as the latter is afire the fun begins—for the lice. They, however, can usually crawl away into crevices out of the reach of the pungent, suffocating fumes; a handful of tobacco leaves thrown into the smoke pot, will stir the pests up greatly, though. Let the house remain closed tightly, for two or three hours, then open the doors and windows again, and the room is fumigated.

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